

Exelon Nuclear

Job Performance Measure

ASD - CHANGE REACTOR POWER WITH RECIRC FLOW - (A)

JPM Number: S-N-a

Revision Number: 00

Date: 12/14

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 00 New JPM. for 2014 ILT NRC exam

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to an IC with the following: (IC 151 was used for validation)
 - Adjust Core flow to establish ~850 MWe.
 - Verify 95 – 100 FCL.

NOTE: It is acceptable 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. Insert following Malfunctions and/or Remotes:
 - None
3. Setup the following Triggers:
 - trgset 1 "ppg228 .gt. 875.0" (Activates when Generator load is > 875 MWe)
 - ior asdaemtrp (1) 2 (Trips 2A Recirc pump)

DOCUMENT PREPARATION

1. A copy of DGP 03-01, Power Changes, marked up to the point of raising power with recirc flow.
2. A Maneuvering REMA marked up to point of raising power with recirc flow.
3. Clean copy of DOP 0202-03, Reactor Recirculation Flow Control System Operation.
4. Clean copy of DOA 0202-01, Recirculation (Recirc) Pump Trip - One or Both Pumps.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 NSO.
2. Unit 2 load was dropped 2 hours ago per TSO direction.
3. The TSO has requested raising Unit 2 load to 900 MWe.

INITIATING CUE

1. The Unit Supervisor has directed you to raise Unit 2 load to 900 MWe using Recirc flow in accordance with DOP 0202-03, REACTOR RECIRCULATION FLOW CONTROL SYSTEM OPERATION, using the preferred method.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
NOTE:				
Provide the Examinee with the supplied copy of: <ul style="list-style-type: none"> ➤ Maneuvering REMA ➤ DOP 0202-03, Reactor Recirculation Flow Control System Operation ➤ DGP 03-01, Power Changes During performance of this JPM, whenever the Examinee obtains a copy of DOA 0202-01, Recirculation (Recirc) Pump Trip - One Or Both Pumps, hand him the supplied copy of it.				
*	1. Depresses one of the Panel 902-5 Recirc Master Manual Control raise speed pushbuttons. (Repeats this step to continue load pickup)	Depresses one of the following Panel 902-5 Recirc Master Manual Control raise speed pushbuttons 0.5 sec, but < 10 sec: <ul style="list-style-type: none"> ❖ RAISE LOW (0.06%) ❖ RAISE MED (0.18%) ❖ RAISE HIGH (0.90%) 	_____	_____
	2. Verifies expected response after each speed bump.	Verifies Recirc pump speeds, Core flow, Rx power and other plant parameters change as expected.	_____	_____
NOTE:				
An automatic Trigger is setup to trip 2A Recirc pump when Generator load reaches 875 MWe.				
BEGIN ALTERNATE PATH				
	3. Announces 2A Recirc pump trip and enters DOA 0202-01, Recirculation (Recirc) Pump Trip - One Or Both Pumps.	Announces 2A Recirc pump trip and enters DOA 0202-01, Recirculation (Recirc) Pump Trip - One Or Both Pumps.	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment	
	4.	Determines operating in the Nominal Feedwater Heating Region of Figure 1, Feedwater Heating Regions, and goes to the Subsequent Operator Actions (Nominal Feedwater Heating) Flow Chart.	Determines operating in the Nominal Feedwater Heating Region of Figure 1, Feedwater Heating Regions, and goes to the Subsequent Operator Actions (Nominal Feedwater Heating) Flow Chart.	_____	_____	_____
<u>CUE:</u>						
If the Examinee begins to do any of the following from the right side of the Hardcard, inform the Examinee that as the CRS “I assigned another operator to perform it”:						
<ul style="list-style-type: none"> ❖ Monitor MSL & off gas rad monitors for increased activity. ❖ Notify QNE to monitor core parameters. ❖ Notify Chemistry to take samples per TS and ODCM if power change was $\geq 20\%$ thermal in one hour. 						
*	5.	Closes 2A Recirc Pump discharge valve MO 2-0202-5A	Rotates 2A PP DISCH VLV MO 2-202-5A CCW to the CLOSE position. Verifies the valve’s CLOSE light lit and OPEN light out.	_____	_____	_____
<u>NOTE:</u>						
While waiting for the 5 minutes to elapse, the Examinee should continue with the rest of the steps.						
*	6.	Inserts CRAM Rods per DGP 03-04 to reduce Reactor power to 35 to 40%	CRAM rods inserting with expected power reduction.	_____	_____	_____
*	7.	After 5 minutes, opens recirc pump discharge valve previously closed.	Rotates 2A PP DISCH VLV MO 2-202-5A CW to the OPEN position. Verifies the valve’s OPEN light lit and CLOSE light out.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<u>CUE:</u>				
After the insertion of several CRAM rods, as the CRS state “another operator will take over inserting CRAM rods. Your task is complete”.				
8.	Repeats back “another operator will take over inserting CRAM rods. My task is complete”	Repeats back “another operator will take over inserting CRAM rods. My task is complete”	_____	_____
9.	Informs Evaluator the Task is complete.	Informs Evaluator the Task is complete.	_____	_____
<u>CUE:</u>				
Acknowledge report of task completion.				
		END		

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: ASD - CHANGE REACTOR POWER WITH RECIRC FLOW - (A)

JPM Number: S-N-a Revision Number: 00

Task Number and Title: 202L024, Change Recirc pump speed on both Recirc pumps using ASD Tandem controls.

K/A Number and Importance: 202001 A4.01 3.7 / 3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 36 minutes **Actual Time Used:** _____ minutes

References: DOP 0202-03, rev 43 and DOA 0202-01, rev 42

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 NSO.
2. Unit 2 load was dropped 2 hours ago per TSO direction.
3. The TSO has requested raising Unit 2 load to 900 MWe.

INITIATING CUE

1. The Unit Supervisor has directed you to raise Unit 2 load to 900 MWe using Recirc flow in accordance with DOP 0202-03, REACTOR RECIRCULATION FLOW CONTROL SYSTEM OPERATION, using the preferred method.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

RAPIDLY SECURE THE RWCU SYSTEM WITH THE REACTOR AT PRESSURE

JPM Number: S-N-b

Revision Number: 01

Date: 12/14

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 01 Update for the 2014 ILT NRC exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any IC where the reactor is at or close to normal operating pressure
 - Verify the RWCU system is in normal operation with the 2A RWCU pump running.

NOTE: It is acceptable 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. Verify PIC 2-1290-2, PRESSURE CONTLR, in BAL with the MAN pot balanced.
3. Insert following Malfunctions and/or Remotes:
 - None
4. Setup the following Triggers:
 - `trgset 1 "rtdmn02_drw .and. (rtwmn02 .le. 0.05)"` (Activates when RWCU pressure controller is in MAN and the pot is <0.05 demand)
 - `ior rtwmn02 (1) 0.0` (This overrides the demand to 0.0 since the lowest the demand goes is 0.02 which causes the RWCU system to isolate before the operator can isolate it)

DOCUMENT PREPARATION

1. A copy of DOP 1200-03, Attachment A, RWCU SYSTEM OPERATION WITH THE REACTOR AT PRESSURE.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. A leak is present in the U2 RWCU system.
2. RWCU Blowdown was NOT established.
3. PCV bypass 2-1201-43 is CLOSED.

INITIATING CUE

1. The Unit Supervisor has directed you to rapidly secure the RWCU system IAW DOP 1200-03, using the Hard Card.

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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
NOTE:				
<p>Pump should trip in step 1 when demand is adjusted to zero. In Step 2 action to stop pump, the Examinee should verify that the pump is tripped OR stops the pump prior to closing valves in the following steps.</p> <p>This is a critical action (verify or stop pump) to prevent forcing an automatic protective action that trips the pump when the system is isolated.</p>				
1. Place PIC 2-1290-2 PRESSURE CONTRL, in MANUAL. <u>AND</u> Adjust demand to zero (0) to close the valve.	Rotates outer collar CW to MAN. Rotates inner knob CCW to zero indication on horizontal indicator. Annunciators 902-4 A-10, B-11, B-12 and C-12 alarm.	_____	_____	_____
2. Stop 2A RWCU RECIRC PP.	Verifies 2A pump tripped OR Places 2A pump control switch to STOP and verifies: <ul style="list-style-type: none"> o Blue ON light OFF o Green OFF light ON 	_____	_____	_____
3. Verify the following valves are closed:	.	_____	_____	_____
* <ul style="list-style-type: none"> • MO 2-1201-1, RX OUTLET ISOL. 	Momentarily places MO 2-1201-1, RX OUTLET ISOL, control switch to CLOSE, and verifies its Red Close light ON.	_____	_____	_____
<ul style="list-style-type: none"> • MO 2-1201-1A, RX OUTLET BYP. 	Verifies MO 2-1201-1A, RX OUTLET BYP, Green Close light ON.	_____	_____	_____
* <ul style="list-style-type: none"> • MO 2-1201-2, INLET ISOL. 	Momentarily places MO 2-1201-2, INLET ISOL, control switch to CLOSE, and verifies its Red Close light ON.	_____	_____	_____
* <ul style="list-style-type: none"> • MO 2-1201-7, RX RETURN VLV. 	Momentarily places MO 2-1201-7, RX RETURN VLV, control switch to CLOSE, and verifies its Red Close light ON.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
<ul style="list-style-type: none"> MO 2-1201-8, RWCU PP BYP. 	Verifies MO 2-1201-8, RWCU PP BYP, Red Close light ON.	_____	_____	_____
NOTE:				
Step 4 on Hardcard is N/A as blowdown was not established (per initial conditions). Step 5 is not an 'If / Then" so the Examinee may verify that the actions within the step are complete.				
4 WHEN flow is zero [FI 2-1290-13, BLOWDN FLOW], then close the following valve(s), as applicable: <ul style="list-style-type: none"> MO 2-1201-11, BLOWDN TO CONDR. MO 2-1201-12, BLOWDN TO RW VLV. 	Verifies closed indication for valves: <ul style="list-style-type: none"> MO 2-1201-11, BLOWDN TO CONDR. MO 2-1201-12, BLOWDN TO RW VLV. 	_____	_____	_____
5 Close MO 2-1201-9A, A RWCU PP DISCH	Places MO 2-1201-9A, A RWCU PP DISCH, control switch to CLOSE and verifies Green Closed light ON	_____	_____	_____
NOTE:				
Step 7 is N/A as PCV bypass is closed. (Per initial conditions).				
6 Notify Chemistry that RWCU has been isolated, (Noble Metals Monitor should be isolated)	Notifies Chemistry.	_____	_____	_____
CUE:				
Respond that Chemistry has been notified.				
NOTE:				
Step 7 action is to be taken by another operator.				
7 Enter substitute values for computer points to ensure the heat balance is accurate.	Will address entering computer points.	_____	_____	_____
CUE:				
Inform the examinee that the another NSO will enter substitute values for step 9 of the Hard Card.				

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
Report to the Unit Supervisor that RWCU has been rapidly secured.	Reports that RWCU has been secured.	_____	_____	_____
CUE: Acknowledge the report.				
END				

JPM Stop Time: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. A leak is present in the U2 RWCU system.
2. RWCU Blowdown was NOT established.
3. PCV bypass 2-1201-43 is CLOSED.

INITIATING CUE

1. The Unit Supervisor has directed you to rapidly secure the RWCU system IAW DOP 1200-03, using the Hard Card.

Exelon Nuclear

Job Performance Measure

DEHC – ESTABLISH COOLDOWN WITH BYPASS VALVES

JPM Number: S-N-c

Revision Number: 02

Date: 12/14

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 00 New JPM.

Revision 01 Modified for ILT 12-1 Cert Exam

Revision 02 Modified for ILT 14-1 NRC Exam

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any IC with the Reactor shutdown, but at full pressure.

NOTE: It is acceptable 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. Ensure that Both DEHC monitors are displaying the STATUS screen.

3. Insert following Malfunctions and/or Remotes:

- None.

4. Setup the following Triggers:

- None.

DOCUMENT PREPARATION

Clean copy of DGP 02-03, Attachment F, Reactor Plant Cooldown Using Bypass valves.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. A transient has occurred and the Unit Supervisor has determined a reactor cooldown is required.
3. Another NSO will acknowledge annunciators not associated with this task.

INITIATING CUE

1. The Unit Supervisor has directed you to begin an 85.0 Deg. F / hr automatic reactor cooldown to 350 Deg. F utilizing the Hardcard.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment
NOTE:					
Provide the Examinee with the provided copy of DGP 02-03.					
All the below actions can be performed on <u>either</u> of the Digital EHC control stations.					
*	1.	Select <CONTROL>.	Utilizing the trackball controller, clicks on <CONTROL>.	_____	_____
*	2.	Select <RX COOLDOWN>.	Utilizing the trackball controller, clicks on <COOLDOWN>.	_____	_____
	3.	Verify REACTOR COOLDOWN is OFF.	Observes the REACTOR COOLDOWN OFF select button is orange.	_____	_____
*	4.	Select STPT/RAMP.	Utilizing the trackball controller, clicks on the <STPT/RAMP>.	_____	_____
*	5.	Enter desired target temperature setpoint.	Clicks in the Set Point box. Utilizing the keyboard, enters 350.0.	_____	_____
*	6.	Enter desired cooldown rate in the Ramp box.	Clicks in the Ramp Rate box. Utilizing the keyboard, enters 85.0.	_____	_____
*	7.	Select <OK>...	Utilizing the trackball controller, clicks on <OK>. Clicks <OK> on the Confirm Setpoint pop up window.	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment
*	8. Initiate Reactor cooldown by selecting ON for REACTOR COOLDOWN.	<p>Utilizing the trackball controller, clicks on <ON>.</p> <p>Clicks <OK> on the "Begin Reactor Cooldown" pop up window.</p> <p>Verifies Cooldown occurring using any of the following:</p> <ul style="list-style-type: none"> ○ Recirc temperature dropping ○ Reactor pressure dropping. 	_____	_____	_____
	9. On <CONTROL> <PRESSURE CONTROL> screen, adjust pressure setpoint as necessary to maintain at least 50 psig above Reactor pressure.	<p>If uses other DEHC screen, utilizing the trackball controller, clicks on <CONTROL>.</p> <p>Utilizing the trackball controller, clicks on <PRESSURE CONTROL>.</p>	_____	_____	_____
	10. On <CONTROL> <BPV JACK> screen, verify BPV Jack position setpoint is -5.0%.	<p>If uses other DEHC screen, utilizing the trackball controller, clicks on <CONTROL>.</p> <p>Utilizing the trackball controller, clicks on < BPV JACK >.</p> <p>Observes BPV Jack position setpoint is -5.0%.</p>	_____	_____	_____
	11. Informs Unit Supervisor task is complete.	Examinee notifies the Unit Supervisor.	_____	_____	_____
<p><u>CUE:</u></p> <p>Acknowledge report of task completion.</p>					

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
	END			

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: DEHC – ESTABLISH COOLDOWN WITH BYPASS VALVES

Revision Number: 02

JPM Number: S-N-c

Task Number and Title: 29501LP040, Respond to a Reactor Scram IAW DGP 02-03.

K/A Number and Importance: 241000.A4.06 3.9 / 3.9

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 12 minutes **Actual Time Used:** _____ minutes

References: DGP 02-03, rev 104

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. A transient has occurred and the Unit Supervisor has determined a reactor cooldown is required.
3. Another NSO will acknowledge annunciators not associated with this task.

INITIATING CUE

1. The Unit Supervisor has directed you to begin an 85.0 Deg. F / hr automatic reactor cooldown to 350 Deg. F utilizing the Hardcard.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

LPCI – MITIGATE HIGH SUCTION PRESSURE
WHILE LINING UP TO CST SUCTION FOR INJECTION

JPM Number: S-N-d

Revision Number: 08

Date: 1/15

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 06 Bank JPM.

Revision 07 Revised for ILT 12-1 Cert Exam.

Revision 08 Revised for ILT 14-1 NRC Exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any IC.

NOTE: It is acceptable 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. Verify NO LPCI pumps operating.
3. Insert following Malfunctions and/or Remotes:
 - Setup Trigger 15 to open 2C LPCI PP suction to CST: `irf lpcstppc (15) true`
4. Setup the following Triggers:
 - None.

DOCUMENT PREPARATION

Markup a copy of DEOP 0500-03, Alternate Water Injection Systems.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. A transient has occurred requiring Alternate Water Injection.

Examiner Note: The following parameters do not match the simulator indications.

3. RPV level is –65 inches and slowly dropping.
4. RPV pressure is 375 psig and slowly dropping.

INITIATING CUE

1. The Unit Supervisor has directed you to line up the 2A LPCI pump suction to the CST and inject to raise RPV water level per DEOP 0500-03, step G.12.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

	PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<u>NOTE:</u>					
Provide the Examinee with the provided copy of DEOP 0500-03.					
1.	Place 2A LPCI PP control switch in Pull-to-Lock.	ALL lights extinguished.	_____	_____	_____
2.	Place PP SUCT VLV MO 2-1501-5A control switch in Manual Bypass and verify closed.	RED light illuminated.	_____	_____	_____
3.	Verify MIN FLOW VLV 2-1501-13A closed if not needed.	RED light illuminated.	_____	_____	_____
<u>CUE:</u>					
2-1501-13A is not required for 2B LPCI pump.					
<u>NOTE:</u>					
The following valves may be verified in any order					
4.	Verify TORUS CLG/TEST valves 2-1501-20A and 2-1501-38A closed.	GREEN lights illuminated.	_____	_____	_____
5.	Verify TORUS SPRAY VLVs 2-1501-19A and 2-1501-18A closed.	GREEN lights illuminated.	_____	_____	_____
6.	Verify DW SPRAY VLVs 2-1501-28A and 2-1501-27A closed.	GREEN lights illuminated.	_____	_____	_____
7.	Verify TORUS CLG/TEST valves 2-1501-20B and 2-1501-38B closed.	GREEN lights illuminated.	_____	_____	_____
8.	Verify TORUS SPRAY VLVs 2-1501-19B and 2-1501-18B closed.	GREEN lights illuminated.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment
9.	Verify DW SPRAY VLVs 2-1501-28B and 2-1501-27B closed.	GREEN lights illuminated.	_____	_____	_____
<u>NOTE:</u>					
For bleeding off the pressure in the suction piping, the examinee may communicate each of the following steps individually OR instruct the EO to complete actions of DEOP 0500-03 step G.12.c.(5 thru 8).					
<u>CUE:</u>					
When directed, as the EO in the field, communicate that the steps (either individually or as a whole) have been completed.					
10.	Unlock AND open 2-1501-74A, U2 LPCI A PMP VENT VLV.	Instructs EO to complete step G.12.c.(5).(a).	_____	_____	_____
11.	Crack open 2-1501-15A, U2 LPCI A PMP VENT VLV until flow is observed from pipe.	Instructs EO to complete step G.12.c.(5).(b).	_____	_____	_____
12.	Close 2(3)-1501-15A, U2 LPCI A PMP VENT VLV.	Instructs EO to complete step G.12.c.(5).(c).	_____	_____	_____
13.	Close AND lock 2-1501-74A, U2(3) LPCI A PMP VENT VLV.	Instructs EO to complete step G.12.c.(5).(d).	_____	_____	_____
14.	Open 2-1501-47A-R, U2 LPCI A PUMP SUCT PI 2-1501-47A ROOT VLV (at pump) and verify PI 2-1501-47A indicates less than 15 psig.	Instructs EO to obtain PI 2-1501-47A reading per step G.12.c.(6). & G.12.c.(7).	_____	_____	_____
<u>CUE:</u>					
PI 2-1501-47A indicates 15.5 psig.					
15.	Recognizes reading is NOT less than 15 psig.	Determines reading is greater than 15 psig.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment
16.	Close 2-1501-47A-R, U2 LPCI A PUMP SUCT PI 2-1501-47A ROOT VLV.	Instructs EO to close 2-1501-47A per step G.12.c.(8).	_____	_____	_____
<u>CUE:</u> 2-1501-47A-R is Closed.					
*	17. Open PP SUCT VLV MO 2-1501-5A.	GREEN light illuminated.	_____	_____	_____
*	18. Place 2A LPCI PP control switch in AUTO.	Depresses and places 2A LPCI PP c/s to center (AUTO) position.	_____	_____	_____
19.	Notify Unit Supervisor that 2A LPCI pump cannot be used with suction from the CST.	Examinee notifies Unit Supervisor of 2A LPCI pump suction pressure problem when aligned to CST. May recommend using another LPCI pump.	_____	_____	_____
<u>CUE:</u> Notify the examinee that injection is still needed and to line up 2C LPCI pump suction to the CST.					
BEGIN ALTERNATE PATH					
*	20. Place 2C LPCI PP control switch in Pull-to-Lock.	ALL lights extinguished.	_____	_____	_____
*	21. Place PP SUCT VLV MO 2-1501-5C control switch in Manual Bypass and verify closed.	RED light illuminated.	_____	_____	_____
22.	Verify MIN FLOW VLV 2-1501-13B closed if not needed.	RED light illuminated.	_____	_____	_____
<u>CUE:</u> 2-1501-13B is not required for 2D LPCI pump.					

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment
23.	Verify TORUS CLG/TEST valves 2-1501-20A and 2-1501-38A closed.	GREEN lights illuminated.	_____	_____	_____
24.	Verify TORUS SPRAY VLVs 2-1501-19A and 2-1501-18A closed.	GREEN lights illuminated.	_____	_____	_____
25.	Verify DW SPRAY VLVs 2-1501-28A and 2-1501-27A closed.	GREEN lights illuminated.	_____	_____	_____
26.	Verify TORUS CLG/TEST valves 2-1501-20B and 2-1501-38B closed.	GREEN lights illuminated.	_____	_____	_____
27.	Verify TORUS SPRAY VLVs 2-1501-19B and 2-1501-18B closed.	GREEN lights illuminated.	_____	_____	_____
28.	Verify DW SPRAY VLVs 2-1501-28B and 2-1501-27B closed.	GREEN lights illuminated.	_____	_____	_____
29.	Unlock AND open 2-1501-74C, U2 LPCI C PMP VENT VLV.	Instructs EO to complete step G.12.e.(5).(a).	_____	_____	_____
30.	Crack open 2-1501-15C, U2 LPCI C PMP VENT VLV until flow is observed from pipe.	Instructs EO to complete step G.12.e.(5).(b).	_____	_____	_____
31.	Close 2(3)-1501-15C, U2 LPCI C PMP VENT VLV.	Instructs EO to complete step G.12.e.(5).(c).	_____	_____	_____
32.	Close AND lock 2-1501-74C, U2 LPCI C PMP VENT VLV.	Instructs EO to complete step G.12.e.(5).(d).	_____	_____	_____

Job Performance Measure (JPM)

	PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
	33. Open 2-1501-47C-R, U2 LPCI C PUMP SUCT PI 2-1501-47C ROOT VLV (at pump) and verify PI 2-1501-47C indicates less than 15 psig.	Instructs EO to obtain PI 2-1501-47A reading per step G.12.e.(6) and G.12.e(7)..	_____	_____	_____
<u>CUE:</u> Pressure is 10 psig. .					
	34. Recognizes reading is less than 15 psig.	Determines reading is LESS than 15 psig.	_____	_____	_____
	35. Close 2-1501-47C-R, U2 LPCI C PUMP SUCT PI 2-1501-47C ROOT VLV.	Instructs EO to close 2-1501-47C per step G.12.e.(8).	_____	_____	_____
*	36. Unlock <u>AND</u> open 2-1501-31C, U2 LPCI C PMP SUCT VLV FROM CST [at 2 C LPCI Pump]	Directs EO to perform step G.12.e.(10)(a)	_____	_____	_____
<u>CUE:</u> 2-1501-31C is open.					
*	37. Unlock <u>AND</u> open 2-1501-37, U2 LPCI & CS SUCT FROM 2/3A CST SV (located at 2/3A CST)	Directs EO to perform step G.12.e.(10)(b)	_____	_____	_____
<u>Simulator Operator / Evaluator:</u> Activate Trigger 15 to lineup 2C LPCI pump suction to the CST.					
<u>CUE:</u> 2-1501-37 is open.					

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment	
*	38.	Start 2C LPCI PP	Places control switch to start. RED light illuminated.	_____	_____	_____
	39.	Inform Unit Supervisor that 2C LPCI pump is lined up to the CST and the task is complete.	Informs Unit Supervisor that 2C LPCI pump is lined up to the CST and injecting; the task is complete.	_____	_____	_____
<u>CUE:</u> Acknowledge report of task completion.						
END						

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: LPCI – MITIGATE HIGH SUCTION PRESSURE WHILE LINING UP TO CST
SUCTION FOR INJECTION

Revision Number: 08

JPM Number: S-N-d

Task Number and Title: 29502LK061, Lineup LPCI to the CST

K/A Number and Importance: 295031.A1.01 4.4 / 4.4

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 38 minutes **Actual Time Used:** _____ minutes

References: DEOP 0500-03, rev 23

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. A transient has occurred requiring Alternate Water Injection.
3. RPV level is –65 inches and slowly dropping.
4. RPV pressure is 375 psig and slowly dropping.

INITIATING CUE

1. The Unit Supervisor has directed you to line up the 2A LPCI pump suction to the CST and inject to raise RPV water level per DEOP 0500-03, step G.12.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

CONTAINMENT - VENT THE TORUS WITH LEVEL LESS THAN 30 FEET – (A)

JPM Number: S-N-e

Revision Number: 06

Date: 12/14

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 04 Bank JPM.

Revision 05 Revised for 2010 NRC exam.

Revision 06 Revised for 2014 NRC exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to an IC with the mode switch NOT in run, so that the proper alarms and interlocks will work.
2. Ensure Torus water level is <30 feet.
3. Insert following Malfunctions and/or Remotes.
 - IMF CIGP2I (Spurious Group II Isolation)
 - IOR PCDOP61 OFF (prevents the 1601-61 valve from opening)

 - Adjusts Torus Level indications to ~20 feet.
 - ❖ ior atl10 25.0
 - ❖ ior pcltr10a 20
 - ❖ ior pcltr10b 20

 - ior pcptr103 58.0 (Adjusts Torus Bottom Pressure to 58.0 psig)

 - Pulls ECCS Initiation Logic fuses so when Drywell pressure is forced high, NO ECCS starts.
 - ❖ irf lp1aaf1f pulled
 - ❖ irf lp701af pulled
 - ❖ irf lp1aaf2f pulled
 - ❖ irf lp701bf pulled
 - ❖ irf csaloff pulled
 - ❖ irf csblgoff pulled
 - ❖ irf hp2a1f1 pulled
 - ❖ irf hp2b1f1 pulled

 - Adjusts Drywell & Torus pressures to 50.0 psig.
 - ❖ ior pcp8524 50.0
 - ❖ ior pcpdw102 50.0
 - ❖ ior pcp85401 5.0|
 - ❖ ior pcptr1 5.0
4. Verify the SBGT system operating and verify flow ~4000 scfm.
5. Start ALL available ventilation exhaust fans as directed in DEOP 0500-04.
6. Place CRM ISOL switch to ISOLATE – wait 10 seconds then verify a C/R Booster Fan is running.

DOCUMENT PREPARATION

Markup a copy of DEOP 0500-04, Containment Venting.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Aux 2 NSO.
2. A break inside the Unit 2 Primary Containment has occurred.
3. Torus bottom pressure is about to exceed the PCP limit in DEOP 0200-01.
4. Torus water level is 20 feet.
5. Control Room ventilation has been isolated.
6. Reactor Building and Turbine Building have been evacuated.
7. The Instrument Bus and ESS Bus are energized.
8. The Instrument Air System is available.
9. The N2 System is in its normal lineup.

INITIATING CUE

1. The Unit Supervisor has directed you to vent the Unit 2 Primary Containment in accordance with DEOP 0500-04, to control Primary Containment pressure.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment	
<p><u>NOTE:</u></p> <p>Provide examinee the marked up copy of DEOP 0500-04.</p> <p>Annunciator 902-3 A-15, Pri Cnmt Vent/Sample Isol Bypass, will be received during this JPM.</p>					
1.	Verify SGBT is operating and flow is ~ 4000 scfm.	Verifies 2/3A SGBT train FI 7540-13 is reading ~4000 scfm.	_____	_____	_____
2.	Verify Reactor Mode switch <u>NOT</u> in RUN.	Verifies Reactor Mode switch <u>NOT</u> in RUN.	_____	_____	_____
3.	Place VENT ISOL SIGNAL BYPASS switch on 902-5 panel to TORUS.	Momentarily places Bypass switch to Torus Position.	_____	_____	_____
<p><u>NOTE:</u></p> <p>The AO 2-1601-61, TORUS 2-INCH VENT VLV, will <u>NOT</u> open.</p>					
4.	Open AO 2-1601-61, TORUS 2-INCH VENT VLV.	Places AO 2-1601-61 control switch to OPEN position and determines that the valve will not open.	_____	_____	_____
<p><u>NOTE:</u></p> <p>IF candidate states that the 2-1601-61 valve will not open, direct him/her to complete the task.</p>					
BEGIN ALTERNATE PATH					
*	5. Place VENT ISOL SIGNAL BYPASS switch on 902-5 panel to DRYWELL.	Momentarily places Vent Isol Signal Bypass switch to Drywell position.	_____	_____	_____
<p><u>CUE:</u></p> <p>If examinee reads TORUS BOTTOM PRESS PI 2-1640-103, inform him/her that the meter as read reads 56 psig and is trending UP slowly.</p>					
*	6. Open AO 2-1601-62, DW 2-INCH Vent.	Red Open light illuminated.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST			STANDARDS	SAT	UNSAT	Comment
*	7.	Open AO 2-1601-63, VENT TO SBGT.	Red Open light illuminated.	_____	_____	_____
	8.	Determine if SBGT flow is adequate to control and maintain Torus Bottom pressure below the Primary Containment Pressure Limit.	Containment pressure stable or decreasing.	_____	_____	_____
<p><u>CUE:</u></p> <p>Torus bottom pressure is being controlled and maintained below the Primary Containment Pressure Limit.</p> <p>If examinee asks reading on TORUS BOTTOM PRESS PI 2-1640-103, inform him/her that the meter has decreased to 53 psig (5 psig less than original report).</p>						
	9.	Informs Unit Supervisor task is complete.	Examinee notifies the Unit Supervisor.	_____	_____	_____
<p><u>CUE:</u></p> <p>Acknowledge report of task completion.</p>						
			END			

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: CONTAINMENT - VENT THE TORUS WITH LEVEL LESS THAN 30 FEET – (A)

Revision Number: 06

JPM Number: S-N-e

Task Number and Title: 295L099, Vent the primary containment to SBGT to stay below the Primary Containment Pressure Limit.

K/A Number and Importance: 295024.A1.14 3.4 / 3.5

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 14 minutes **Actual Time Used:** _____ minutes

References: DEOP 0500-04, rev 15

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Aux 2 NSO.
2. A break inside the Unit 2 Primary Containment has occurred.
3. Torus bottom pressure is about to exceed the PCP limit in DEOP 200-01.
4. Torus water level is 20 feet.
5. Control Room ventilation has been isolated.
6. Reactor Building and Turbine Building have been evacuated.
7. The Instrument Bus and ESS Bus are energized.
8. The Instrument Air System is available.
9. The N2 System is in its normal lineup.

INITIATING CUE

1. The Unit Supervisor has directed you to vent the Unit 2 Primary Containment in accordance with DEOP 500-04, to control Primary Containment pressure.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

AUX POWER - TRANSFER POWER TO TR-22 FROM TR-21
WITH FAILURE OF BREAKER TO CLOSE

JPM Number: S-N-f

Revision Number: 02

Date: 12/14

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 00 Bank JPM.

Revision 01 Revised for ILT 12-1 Cert Exam

Revision 02 Revised for ILT 14-1 NRC Exam

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator any IC with only 2 RFPs and 3 Cond/Cond Booster Pumps operating.

NOTE: It is acceptable 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. Insert following Malfunctions and/or Remotes:
 - irf M63 open (Prevents TR-22 to Bus 23 breaker from closing).
3. Setup the following Triggers:
 - None.
4. Ensure ONLY 2 RFPs operating.
5. Ensure ONLY 3 Cond/Cond Booster Pumps operating.

DOCUMENT PREPARATION

1. Marked up copy of DOP 6500-01, Transfer of 4160 Volt Bus Power Supply.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. Unit 2 was operating at rated power when the TR-21 trouble alarm is received.
3. The EO on his round reported that the TR-21 cooling fans are not all operating and the transformer temperature is rising.
4. The Unit Supervisor has decided to unload TR-21 by transferring auxiliary power to TR-22.
5. Another operator will verify TR-86 Load Tap Changer positions and loading remains below the restrictions of the procedure.

INITIATING CUE

1. The Unit Supervisor has directed you to transfer Bus 21 and Bus 23 to TR-22 from TR-21 in accordance with DOP 6500-01.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<p><u>NOTE:</u></p> <p>Provide the examinee with the provided copy of DOP 6500-01.</p> <p>This task has two parts, which can be performed in any order.</p>				
<p><u>CUE:</u></p> <p>IF the incoming and running voltages are NOT approximately equal, inform examinee that they ARE approximately equal.</p>				
TRANSFER BUS 21 TO TR-22				
*	1.	Position TR-22 to Bus 21 SYNCHROSCOPE selector switch to ON.	Switch in ON position.	____
	2.	Verify: INCOMING VOLTS and RUNNING VOLTS meters approximately equal. SYNCHRONIZING meter at 12 o'clock position and <u>NOT</u> rotating. SYNCHRONIZING meter lights <u>NOT</u> glowing.	Voltages approximately equal. Meter <u>NOT</u> rotating. White lights extinguished.	____
*	3.	Position TR-22 to Bus 21 breaker control switch to CLOSE.	RED light illuminated.	____
	4.	Verify: SYNCHRONIZING meter at 12 o'clock position. TR-22 to Bus 21 breaker indicates CLOSED. Annunciator 902-8 D-1 in alarm.	Meter <u>NOT</u> rotating. RED light illuminated. Annunciator 902-8 D-1 illuminated.	____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST			STANDARDS	SAT	UNSAT	Comment
*	5.	Position TR-21 to Bus 21 breaker control switch to TRIP.	GREEN light illuminated.	_____	_____	_____
	6.	Verify: TR-21 to Bus 21 breaker indicates OPEN. Annunciator 902-8 D-1 clears.	GREEN light illuminated. Annunciator 902-8 D-1 extinguished.	_____	_____	_____
	7.	Position TR-22 to Bus 21 synchroscope selector switch to OFF.	Switch in OFF position.	_____	_____	_____
	8.	Verify Bus 21 AMMETER and VOLTMETER indications are normal.	Verifies Bus 21 amps and volts are normal.	_____	_____	_____
<u>NOTE:</u>						
Amps may vary depending on conditions, and volts are normally ~ 4160.						
TRANSFER BUS 23 TO TR-22						
*	9.	Position TR-22 to Bus 23 SYNCHROSCOPE selector switch to ON.	Switch in ON position.	_____	_____	_____
	10.	Verify: INCOMING VOLTS and RUNNING VOLTS meters approximately equal. SYNCHRONIZING meter at 12 o'clock position and <u>NOT</u> rotating. SYNCHRONIZING meter lights <u>NOT</u> glowing.	Voltages approximately equal. Meter <u>NOT</u> rotating. White lights extinguished.	_____	_____	_____
*	11.	Position TR-22 to Bus 23 breaker control switch to CLOSE.	Breaker does NOT close.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<p><u>NOTE:</u></p> <p>Candidate should observe that the TR-22 to Bus 23 breaker did not close.</p>				
*	12.	IMMEDIATELY positions TR-22 to Bus 23 breaker control switch to OPEN (trip) AND notifies Unit Supervisor.	GREEN light illuminated.	_____
<p><u>NOTE:</u></p> <p>Candidate should NOT proceed and trip TR-21 to Bus 23 breaker, as this will de-energize Bus 23.</p> <p>If the TR-22 to Bus 23 breaker is the first breaker that was operated:</p> <p><u>CUE:</u></p> <p>Acknowledge report of the TR-22 to bus 23 breaker failed to close. Inform the candidate another operator will address Bus 23 and to continue with the transfer of Aux power on Bus 21.</p>				
	13.	Informs Unit Supervisor task is complete.	Examinee notifies the Unit Supervisor.	_____
<p><u>CUE:</u></p> <p>Acknowledge report of task completion.</p>				
		END		

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: AUX POWER - TRANSFER POWER TO TR-22 FROM TR-21 WITH FAILURE OF BREAKER TO CLOSE

Revision Number: 02

JPM Number: S-N-f

Task Number and Title: 262L024, Transfer a 4160 volt bus between power supplies.

K/A Number and Importance: 262001.A4.04 3.6 / 3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 24 minutes **Actual Time Used:** _____ minutes

References: DOP 6500-01, rev 12

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. Unit 2 was operating at rated power when the TR-21 trouble alarm is received.
3. The EO on his round reported that the TR-21 cooling fans are not all operating and the transformer temperature is rising.
4. The Unit Supervisor has decided to unload TR-21 by transferring auxiliary power to TR-22.
5. Another operator will verify TR-86 Load Tap Changer positions and loading remains below the restrictions of the procedure.

INITIATING CUE

1. The Unit Supervisor has directed you to transfer Bus 21 and Bus 23 to TR-22 from TR-21 in accordance with DOP 6500-01.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

RBM – CLEAR RBM MALFUNCTION – (A)

JPM Number: S-N-g

Revision Number: 01

Date: 01/15

Developed By: _____
Instructor Date

Validated By: _____
SME or Instructor Date

Review By: _____
Operations Representative Date

Approved By: _____
Training Department Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 00 New JPM for 2014 LORT NRC Exam.

Revision 01 Revised JPM for 14-1 ILT NRC Exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any IC with:

NOTE: It is acceptable 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.

- FCL 90 - 96%
- A control rod available to withdraw which meets the following:
 - In-sequence.
 - Partially withdrawn.
 - Non-edge.

2. For development of this JPM, IC 152 with control rod sequence 2S.0.0 1646 (step 13 withdrawn) was used with the following:

- Insert Control Rod D-04 from position 20 to 14.
- Recirc flow at ~58 Mlbm/hr. (Can be adjusted higher if necessary)

3. Setup the Malfunctions, Remotes, and/or Triggers by running CAEP file: S-N-g.cae

DOCUMENT PREPARATION

Clean copy of DOA 0700-03, ROD OUT BLOCKS.

Copy of Special Maneuver Rod Move Sheets

Copy DGP 03-01, Power Changes

Copy of DAN 902(3)-5 A-7

CAEP file:

S-N-g.cae
For 14-1 ILT NRC Exam
Written by MP
Rev 01
Date 01/15

INITIAL CONDITIONS

None

S-N-g

Page 3 of 10

Job Performance Measure (JPM)

EVENT TRIGGERS

Setup for JPM S-N-g, RBM – Clear RBM Malfunction – (A)

Event Trigger 1 Activates when control rod D-04 is settling to position 16.

Overrides RBM 7 Mode SW to STANDBY.

Overrides RBM 7 902-37 NO BALANCE light ON.

trgset 1 "rdzactls(28) .gt. 44.0"

ior nidrmod16 (1) off

ior nidrmod15 (1) standby

ior nilbnbal1 (1) true

Event Trigger 2 Activates when RBM 7 is placed to ZERO NO. 2.

Deletes RBM 7 OPERATE override.

trgset 2 "nidrmod1_drw(4)"|2

trg 2 "dor nidrmod16"|2

Event Trigger 3 Activates when RBM 7 is placed to ZERO NO. 2.

Deletes RBM 7 STANDBY override.

trgset 3 "nidrmod1_drw(4)"|2

trg 3 "dor nidrmod15"|2

Event Trigger 4 Activates when RBM 7 is placed to ZERO NO. 2.

Deletes RBM 7 NO BALANCE light override.

trgset 4 "nidrmod1_drw(4)"|2

trg 4 "dor nilbnbal1"|2

END

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the NSO assigned to move control rods.
2. The QNE requests withdrawing control rod D-04 from position 14 to 20 to raise FCL using single notch.

INITIATING CUE

1. The Unit Supervisor has directed you to withdraw control rod D-04 from position 14 to position 20 using single notching IAW DGP 03-01, Power Changes, step G.2.w.
2. Use the Special Maneuver Rod Move Sheets provided by the QNE.
3. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<p>Note: Although not a procedure step a second verifier is required. Second Verifier Duties:</p> <ul style="list-style-type: none"> ➤ Proper rod selected ➤ Insert and Withdraw limits understood. ➤ Check off each control rod movement on the CRD Checklist. 				
1.	Request a second verifier	VERIFIES second verifier available.	_____	_____
<p>Cue: Inform examinee that you will perform duties of second verifier.</p>				
*2.	Selects Control Rod D-04.	Depresses Select Pushbutton for Control Rod D-04. Observes Full Core Display and Apron Select lights for control rod D-04 lit.	_____	_____
<p>NOTE: An automatic Trigger inserts a failure for RBM 7 as control rod D-04 settles to position 16.</p>				
*3.	Single notches out Control Rod D-04 from position 14 to position 16.	<ul style="list-style-type: none"> • Momentarily places Rod Movement Control switch to Rod Out. o Verifies Control Rod D-04 latches at position 16. 	_____	_____
4.	Observe annunciator 902-5 A-7, RBM HI/INOP is received.	Announces annunciator 902-5 A-7, RBM HI/INOP is received.	_____	_____
<p>ALTERNATE PATH BEGINS</p>				
5.	Depress the appropriate RBM PUSH TO SET-UP Push Buttons.	Depresses the RBM PUSH TO SET-UP Push Buttons.	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment
6.	Verify only one Control Rod is selected for movement, and that it is in the proper sequence (the NO ROD SELECTED Light on Panel 902(3)-37 should be extinguished).	Verifies only one rod is selected on the rod select matrix and the NO ROD SELECTED light for RBM 7 at panel 902-37 is extinguished.	_____	_____	_____
7.	Check that there are NO unusually high LPRM indications, and that there are the proper number of assigned LPRMs for each of the RBM Channels.	Verifies that there are no high LPRM indications and RBM 7 has the proper number of LPRMs assigned.	_____	_____	_____
<u>NOTE:</u>					
When the examinee begins to printout control rod and LPRM printouts, provide the Examinee with the handouts in the JPM package.					
<u>CUE:</u>					
When the examinee states they would provide the printouts to the QNE for review, inform the examinee the QNE has reviewed the printouts and has no concerns.”					
8.	Obtain a Control Rod Printout and a LPRM Printout from the process computer (Reference DOP 9950-03 AND DOP 9950-07) to verify proper Control Rod Position and LPRM flux profile.	Examinee reviews printouts to verify no concerns.	_____	_____	_____
*9.	Place the RBM 7 Mode Selector Switch to the ZERO 2 position and then move it to the STANDBY Position.	Places the RBM 7 Mode Selector Switch to the ZERO 2 position <u>AND</u> then to STANDBY.	_____	_____	_____
<u>NOTE:</u>					
This will cause the card to perform a nulling sequence, the RBM 7 INOP light will go on and the NO BALANCE Light for RBM 7 on Panel 902-37 will go out.					
*10.	Place the RBM Mode Selector Switch to the OPERATE Position.	Places the RBM 7 Mode Selector Switch to OPERATE	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<u>NOTE:</u>				
The RBM 7 INOP light on Panel 902-37 will go out.				
ALTERNATE PATH ENDS				
*11.	Single notches out Control Rod D-04 from position 16 to position 18.	<ul style="list-style-type: none"> • Momentarily places Rod Movement Control switch to Rod Out. ○ Verifies Control Rod D-04 latches at position 18. 	_____	_____
*12.	Single notches out Control Rod D-04 from position 18 to position 20.	<ul style="list-style-type: none"> • Momentarily places Rod Movement Control switch to Rod Out. ○ Verifies Control Rod D-04 latches at position 20. 	_____	_____
<u>NOTE:</u>				
At this point the JPM is complete				
13.	Informs Unit Supervisor task is complete.	Examinee notifies the Unit Supervisor.	_____	_____
<u>CUE:</u>				
Acknowledge report of task completion.				
END				

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: RBM – Clear RBM Malfunction

JPM Number: S-0700-16 Revision Number: 00

Task Number and Title: 201L016, Respond to a rod out block.

K/A Number and Importance: 215002.A2.05 3.2 / 3.3

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 33 minutes **Actual Time Used:** _____ minutes

References: DOA 0700-03, rev 12; DAN 902-5 A-7, rev 15

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the NSO assigned to move control rods.
2. The QNE requests withdrawing control rod D-04 from position 14 to 20 to raise FCL using single notch.

INITIATING CUE

1. The Unit Supervisor has directed you to withdraw control rod D-04 from position 14 to 20 using single notch IAW DGP 03-01, Step G.2.w.
2. Use the Special Maneuver Rod Move Sheets provided by the QNE.
3. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

CREV - SECURE "A" AHU AND STARTUP "B" AHU AND RCU

JPM Number: S-N-h

Revision Number: 01

Date: 12/14

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 00 New JPM.

Revision 01 Revised JPM ILT 14-1 NRC Exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any IC.

NOTE: It is acceptable 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. Ensure "A" AHU operating.
3. Insert following Malfunctions and/or Remotes:
 - None.
4. Setup the following Triggers:
 - None.

DOCUMENT PREPARATION

Clean copy of DOP 5750-05, Control Room Ventilation and Air Conditioning System.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. The Control Room Vent "A" AHU needs to be removed from service for maintenance.
3. There has NOT been any painting done anywhere in the plant within the last 14 days.
4. There has NOT been any propane-powered equipment operated anywhere in the plant within the last 14 days.
5. The U2/3 CONTROL ROOM REFRIG CONDENSING UNIT crankcase heaters have been operating for the past 7 days.
6. The CRM HVAC REFRIG COMPR B crankcase heater has been operating for the past 7 days.
7. RCU Cooling Water has been lined up.
8. Another NSO will perform all log entries.
9. An EO is stationed in the field.

INITIATING CUE

1. The Unit Supervisor has directed you to secure the "A" AHU and startup the "B" AHU and RCU per DOP 5750-05.
2. Inform the Unit Supervisor when the task is complete.

Job Performance Measure (JPM)

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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<u>NOTE:</u> Provide the Examinee with the supplied copy of DOP 5750-05.				
<u>NOTE:</u> Train B AHU will automatically start when Train A AHU is secured.				
<u>CUE:</u> If asked as EO in the field, the Train B RCU oil level is in the sightglass.				
*	1.	Secure Train A AHU using control switch, 2/3A TRAIN CRM AIR HANDLING UNIT.	BLUE ON light OFF and GREEN OFF light lit.	____
*	2.	Secure Train A Return Fan using control switch, CRM RETURN FAN.	BLUE ON light OFF and GREEN OFF light lit.	____
*	3.	Place Train B AHU control switch, CRM AIR HANDLING UNIT B, in Auto After Start.	Control Switch RED target visible.	____
	4.	Monitor PI 2/3 5740 36, CRM TO E TURB DP, to assure a positive pressure is being maintained in the Control Room.	Observes a positive pressure is being maintained.	____
	5.	Monitors the RCU compressor suction pressure.	Directs the EO, in the field, to report the RCU compressor suction pressure.	____
<u>CUE:</u> RCU suction pressure is 75 psig.				

Job Performance Measure (JPM)

	PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
	6. Monitors the RCU compressor discharge pressure.	Directs the EO, in the field, to report the RCU compressor discharge pressure.	_____	_____	_____
<u>CUE:</u> RCU discharge pressure is 230 psig.					
	7. Monitors the RCU compressor oil pressure, (40 to 60 psig above suction pressure).	Directs the EO, in the field, to report the RCU compressor oil pressure.	_____	_____	_____
<u>CUE:</u> RCU compressor oil pressure is 125 psig.					
	8. States intention to monitor the RCU compressor oil level AFTER three hours of operation.	Communicates need to monitor oil pressure AFTER three hours of operation.			
<u>CUE:</u> Acknowledge report.					
	9. Informs Unit Supervisor that task is complete.	Examinee notifies the Unit Supervisor.	_____	_____	_____
<u>CUE:</u> Acknowledge report of task completion.					
END					

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: CREV - SECURE "A" AHU AND STARTUP "B" AHU AND RCU

Revision Number: 01

JPM Number: S-N-h

Task Number and Title: 288LN003-14, Discuss the major steps involved in performing Control Room HVAC AFU and RCU test.

K/A Number and Importance: 290003.A4.01 3.2 / 3.2

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 26 minutes **Actual Time Used:** _____ minutes

References: DOP 5750-05, rev 63

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. The Control Room Vent "A" AHU needs to be removed from service for maintenance.
3. There has NOT been any painting done anywhere in the plant within the last 14 days.
4. There has NOT been any propane-powered equipment operated anywhere in the plant within the last 14 days.
5. The U2/3 CONTROL ROOM REFRIG CONDENSING UNIT crankcase heaters have been operating for the past 7 days.
6. The CRM HVAC REFRIG COMPR B crankcase heater has been operating for the past 7 days.
7. RCU Cooling Water has been lined up.
8. Another NSO will perform all log entries.
9. An EO is stationed in the field.

INITIATING CUE

1. The Unit Supervisor has directed you to secure the "A" AHU and startup the "B" AHU and RCU per DOP 5750-05.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

EDG - MANUALLY FILL UNIT 2/3 EDG DAY TANK

JPM Number: S-N-i

Revision Number: 03

Date: 12/14

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 01 Bank JPM.

Revision 02 Revised for 2010 NRC exam.

Revision 03 Revised for ILT 14-1 NRC exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. None, this JPM is performed in the plant.

DOCUMENT PREPARATION

A clean copy of DOA 6600-01, Diesel Generator Failure.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are an extra NSO.
2. Annunciator 902-8 G-4, Unit 2/3 Diesel Generator Day Tank Level HI / LO, has just annunciated.

INITIATING CUE

1. The Unit Supervisor has directed you to check the Unit 2/3 Diesel Generator Fuel Oil Day Tank level AND refill if necessary utilizing DOA 6600-01, Attachment A.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes critical steps.

Number any comments in the "Comment Number" column on the following pages. Then annotate that comment in the "Comments" section at the bottom of the page. The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<u>NOTE:</u>				
Provide the Examinee with the supplied copy of DOA 6600-01, Diesel Generator Failure.				
1.	Proceeds to the 2/3 Diesel Generator Room.	Proceeds to the 2/3 Diesel Generator Room.	_____	_____
*	2. Examinee checks the level in the D/G Fuel Oil Day Tank.	Observes day tank sightglass and determines day tank needs filling.	_____	_____
<u>CUE:</u>				
Point to the lower third area on the local sightglass and state: "the level is here".				
<u>NOTE:</u>				
Normal level is 30 - 38".				
3.	Verify that power is available to the DIESEL FUEL OIL TRANSFER PUMP 2/3.	Verifies power available, by local indicating lights illuminated.	_____	_____
<u>CUE:</u>				
The GREEN LIGHT is illuminated.				
*	4. Start the Fuel Oil Transfer Pump by holding local Test Switch in the ON position.	Holds 2/3-5203 U2 Diesel Oil Transfer Pp c/s in ON position.	_____	_____
<u>CUE:</u>				
The pump is running. You have held the switch for approximately 5 minutes.				

Job Performance Measure (JPM)

	PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
	5. Checks the level in the fuel oil day tank.	OBSERVES sight glass and/or REQUESTS annunciator 902-8 G-4 status.	_____	_____	_____
<u>CUE:</u> Point to the local sightglass at the 35 inch mark on the measuring stick and state: "the level is here"; OR , if requested the NSO says Control Room alarm 902-8 G-4 has reset.					
	6. Informs Unit Supervisor task is complete.	Examinee notifies the Unit Supervisor.	_____	_____	_____
<u>CUE:</u> Acknowledge report of task completion.					
			END		

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: EDG - MANUALLY FILL UNIT 2/3 EDG DAY TANK

Revision Number: 03

JPM Number: S-N-i

Task Number and Title: 264LN00414, Discuss the steps involved in filling of Diesel Generator Day Tanks with Diesel Fuel Oil Storage Tank Transfer Pumps.

K/A Number and Importance: 264000.K1.05 3.2/3.3

Suggested Testing Environment: In-Plant

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 16 minutes **Actual Time Used:** _____ minutes

References: DOA 6600-01, rev 16

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are an extra NSO.
2. Annunciator 902-8 G-4, Unit 2/3 Diesel Generator Day Tank Level HI / LO, has just annunciated.

INITIATING CUE

1. The Unit Supervisor has directed you to check the Unit 2/3 Diesel Generator Fuel Oil Day Tank level AND refill if necessary utilizing DOA 6600-01, Attachment A.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

ISO COND - LOCAL MAKEUP PUMP OPERATION,
WITH COOLING WATER FAILURE

JPM Number: S-N-j

Revision Number: 01

Date: 12/14

Developed By: _____

Instructor

Date

Approved By: _____

Facility Representative

Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 00 New JPM developed for ILT 11-1 (2012-301) NRC Exam.

Revision 01 New JPM developed for ILT 14-1 (2015-301) NRC Exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. None, this is an in-plant JPM.

DOCUMENT PREPARATION

1. Clean copy of DSSP 0100-CR, Attachment I.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. Smoke in the Control Room has led to a Control Room Evacuation.
3. The Unit 2 Isolation Condenser is in service and makeup to the shell side is required.
4. The 2-4399-74, CLEAN DEMIN VLV, valve is open.

INITIATING CUE

1. The Unit Supervisor has directed you to start an Isolation Condenser Makeup Pump in accordance with DSSP 0100-CR Attachment I.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<p><u>NOTE:</u></p> <p>Provide the examinee with the supplied copy of DSSP 0100-CR, Attachment I. CB-1 key is required for entry into the Iso Cond makeup pump building. The candidate may choose to start either engine.</p>				
*	1.	Place the REMOTE-OFF-RUN toggle switch for either engine in RUN.	Switch at panel 2223-126A or B, placed in RUN.	_____ _____ _____
<p><u>CUE:</u></p> <p>The engine started.</p>				
	2.	Verify engine starts and comes up to stable speed.	Engine RPM indicator on panel 2223-126A or B is checked.	_____ _____ _____
<p><u>CUE:</u></p> <p>The engine has started and is running at 1802 RPM.</p>				
<p><u>NOTE:</u></p> <p>The indicator is an LCD display that scrolls through the parameters, (only while the engine is running).</p>				
	3.	Monitor the following engine parameters to ensure limits are NOT exceeded: <ul style="list-style-type: none"> • Oil Pressure • Water Temperature • RPM 	Checks the parameters on the LCD display.	_____ _____ _____
BEGIN ALTERNATE PATH				
<p><u>CUE:</u></p> <p>Provide the following engine parameter values:</p> <ul style="list-style-type: none"> • Oil pressure: 55 psi • Water Temperature 215°F • RPM 1802 rpm 				
	4.	Recognizes that water temperature has exceeded the high limit.	> 205°F.	_____ _____ _____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment
*	5. Stops running engine by placing the REMOTE-OFF-RUN toggle switch to OFF.	Switch at panel 2223-126A or B, placed in OFF.	_____	_____	_____
<u>CUE:</u> The engine stopped.					
*	6. Starts the opposite IC Makeup Pump, than was originally started.	Switch at panel 2223-126A or B, placed in RUN.	_____	_____	_____
<u>CUE:</u> The engine started.					
7.	Verify engine starts and comes up to stable speed.	Engine RPM indicator on panel 2223-126A or B is checked.	_____	_____	_____
<u>CUE:</u> The engine has started and is running at 1799 RPM.					
8.	Monitor the following engine parameters to ensure limits are NOT exceeded: <ul style="list-style-type: none"> • Oil Pressure • Water Temperature • RPM 	Checks the parameters on the LCD display.	_____	_____	_____
<u>CUE:</u> Provide the following engine parameter values: <ul style="list-style-type: none"> • Oil pressure: 59 psi • Water Temperature 185°F • RPM 1799 rpm 					
9.	Notifies SM/U2 US that an Iso Cond Makeup Pump is in operation.	Notifies appropriate individual.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<u>CUE:</u> Inform the candidate that another Operator will perform monitoring duties.				
10.	Reports to the SM/U2 US that the task is complete.	SM/U2 US notified.	_____	_____
<u>CUE:</u> Acknowledge report of task completion.				
		END		

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: ISO COND - LOCAL MAKEUP PUMP OPERATION, WITH COOLING WATER FAILURE

Revision Number: 01

JPM Number: S-N-j

Task Number and Title: 207N020, Start Isolation Condenser Makeup Pump.

K/A Number and Importance: 207000.A2.05 4.0 / 4.0

Suggested Testing Environment: In-Plant

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 14 minutes **Actual Time Used:** _____ minutes

References: DSSP 0100-CR, rev 49

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. Smoke in the Control Room has led to a Control Room Evacuation.
3. The Unit 2 Isolation Condenser is in service and makeup to the shell side is required.
4. The 2-4399-74, CLEAN DEMIN VLV, valve is open.

INITIATING CUE

1. The Unit Supervisor has directed you to start an Isolation Condenser Makeup Pump in accordance with DSSP 0100-CR Attachment I.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

LINEUP SBLC TEST TANK FOR ALTERNATE WATER INJECTION

JPM Number: S-N-k

Revision Number: 11

Date: 01/15

Developed By: _____
Instructor Date

Approved By: _____
Facility Representative Date

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 09 Bank JPM.

Revision 10 Revised for 2010 NRC Exam.

Revision 11 Revised for ILT 14-1 NRC Exam

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. None, this JPM is performed in the plant.

DOCUMENT PREPARATION

Markup a copy of DEOP 0500-03.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are an extra NSO.
2. Unit 2 has just scrammed.
3. A LOCA is causing RPV level to lower.
4. The Clean Demin Water system is operating normally.

INITIATING CUE

1. The Unit Supervisor has directed you to line up and inject using the Standby Liquid Control Test Tank with Clean Demin water per DEOP 0500-03, step G.4.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<p><u>NOTE:</u></p> <p>Provide the Examinee with the supplied copy of DEOP 0500-03.</p> <p>The examinee is NOT required to obtain a key to open or close locked valves.</p> <p>The examinee is required only to identify which type of key is required to open the valve. (Master 'O')</p>				
1.	Proceeds to the Unit 2 Standby Liquid Control (SBLC) area.	Proceeds to the U2 SBLC area.	_____	_____
*	2. Unlock and close 2-1101-4, SBLC STORAGE TK OUTLET SV.	Unlock lock and removes chain, then rotates valve hand wheel full clockwise.	_____	_____
<p><u>CUE:</u></p> <p>The component is in the condition you have described.</p>				
*	3. Unlock and close 2-1199-37 SBLC STORAGE TK OUTLET SV.	Unlock lock and removes chain, then rotates valve handle 1/4 turn clockwise.	_____	_____
<p><u>CUE:</u></p> <p>The component is in the condition you have described.</p>				
*	4. Unlock and open 2-1101-8, SBLC TEST TK OUTLET SV.	Unlocks lock and removes chain, then rotates valve hand wheel full counter-clockwise...	_____	_____
<p><u>CUE:</u></p> <p>The component is in the condition you have described.</p>				
*	5. Open 2-4315-500, CLEAN DEMIN WTR SUPPLY TO SBLC SV.	Rotates valve hand wheel full counter-clockwise.	_____	_____
*	6. Open 2-1101-7, CLEAN DEMIN WTR TO SBLC TEST TK SV.	Rotates valve hand wheel full counter-clockwise.	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<u>CUE:</u> You hear flow noises into the tank.				
<u>CUE:</u> The component is in the condition you have described.				
*	7.	Start both SBLC pumps from the main Control Room.	Contacts the Unit 2 Control Room Operator to start the SBLC pumps.	_____
<u>CUE:</u> You hear the squib valves fire, BOTH SBLC pumps start, and you hear flow noise.				
<u>CUE:</u> As the Unit 2 Control Room Operator: "I have started both Unit 2 Standby Liquid Control pumps".				
	8.	Throttle 2-1101-7, CLEAN DEMIN WTR TO SBLC TEST TK SV, to stabilize level in tank.	Opens / closes valve to maintain test tank level.	_____
<u>CUE:</u> The test tank level is now stabilized (as much going in as is going out).				
	9.	Informs Unit Supervisor task is complete.	Examinee notifies the Unit Supervisor.	_____
<u>CUE:</u> Acknowledge report of task completion.				
			END	

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: LINEUP SBLC TEST TANK FOR ALTERNATE WATER INJECTION

Revision Number: 11

JPM Number: S-N-k

Task Number and Title: 295L088, Line Up SBLC Test Tank for Alternate Water Injection.

K/A Number and Importance: 295031.A1.08 3.8 / 3.9

Suggested Testing Environment: In Plant

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

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

References: DEOP 0500-03, rev 23

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are an extra NSO.
2. Unit 2 has just scrammed.
3. A LOCA is causing RPV level to lower.
4. The Clean Demin Water system is operating normally.

INITIATING CUE

1. The Unit Supervisor has directed you to line up and inject using the Standby Liquid Control Test Tank with Clean Demin water per DEOP 0500-03, step G.4.
2. Inform the Unit Supervisor when the task is complete.

Exelon Nuclear

Job Performance Measure

AUX POWER – CROSSTIE BUS 28 AND 29

JPM Number: S-N-I

Revision Number: 02

Date: 04/15

Developed By: _____
Instructor **Date**

Approved By: _____
Facility Representative **Date**

Job Performance Measure (JPM)

Revision Record (Summary)

Revision 00 New JPM.

Revision 01 Revised to current procedure revision.

Revision 02 Revised to current procedure revision.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to IC 2. (Cold Shutdown)

NOTE: It is acceptable 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. On 902-4 panel perform the following:
 - Open AO 4723, DW N2 Backup.
 - Stop the running Pumpback Compressor.
3. On 902-7 panel perform the following:
 - Start the turbine EBOP.
 - Place the turbine turning gear in PTL.
 - Place the turbine turning gear oil pump in PTL.
 - Stop the turbine bearing lift pumps.
 - Start the generator ESOP.
 - Place the generator MSOP and Vacuum pump in PTL.
 - Start 2B Cond Transfer pump and stop 2A.
4. On 923-5 panel perform the following:
 - Start 2B S. Turb Bldg Vent Fan and stop 2A.
5. Ensure the MCC 28-7/29-7 feed is from Bus 29.
6. Ensure U2 125 VDC system is powered from Battery Charger 2.

NOTE: In the next steps the following will occur.

- RPS CH B half scram.
- Group II and III isolations.
- Instrument Bus will transfer to Reserve feed.

(setup continued on next page)

Job Performance Measure (JPM)

7. Insert following Malfunctions and/or Remotes.
 - irf cirwcujp in (Installs RWCU isol jumpers.)
 - Transfers 250 VDC to the 2/3 charger.
 - ❖ irf t51 true
 - ❖ irf t50 false
 - irf r98 true (installs RPS 600 psig jumpers to prevent a full scram when RPS CH B is powered from alternate supply)
 - irf b04 true (lines up RPS CH B to alternate supply MCC 25-2)
 - irf csbukpfl open (Lines up ECCS keepfill to backup supply)
 - irf m89 open (Opens feed to MCC 28-2 to trip 2B RPS MG set and force instrument bus ABT to its reserve source)
 - imf at1 (Opens MCC 28-1 feed to ATS)
8. Override annunciator ACK buttons DEPRESSED for panels 902-4, -5, -6, -7, and -55 and the Silence button for one of the Common Panels.
9. Reset the GP III Isolation, place the RWCU Aux PP back on and reestablish blowdown so RPV level is stable.
10. Acknowledge and reset alarms.
11. During the performance of this JPM, audible panel alarms may sound if the ACK button is not overridden DEPRESSED. Perform the action of the 'other' NSO mentioned in the cue to silence any audible alarms.

DOCUMENT PREPARATION

DOP 6700-02 Attachment A hardcard.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. An NLO reports that Transformer 28 is overheating.
3. The Unit Supervisor decided that Transformer 28 needs to be de-energized.
4. Consideration of AC loads lost during the evolution has been completed and will have no major impact.
5. TS sections 3.8.7 and 3.8.8 have been checked and need not be referenced again
6. DOP 6800-05, Power Restoration to ATS feeds has been referenced. No actions are necessary.

INITIATING CUE

1. The Unit Supervisor has directed you to perform a dead bus transfer of Bus 28 to Bus 29 in accordance with the DOP 6700-02 hard card.
2. Inform the Unit Supervisor when the task is complete.

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

- * Denotes critical steps.
- 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.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment
<p><u>NOTE:</u></p> <p>Examinee should locate the hard card, then provide the included copy.</p> <p>Evaluator is to acknowledge all alarms except the 902-7 and 8 panel.</p>				
*	1. Open Bus 23-1 to TR-28 ACB.	Green light illuminated.	_____	_____
	2. Verifies and reports alarm 902-8 A-7.	Reports alarm 902-8 A-7.	_____	_____
*	3. Close Bus 29 & Bus 28 tie ACB.	Red light illuminated.	_____	_____
*	4. Close Bus 28 & Bus 29 tie ACB.	Red light illuminated.	_____	_____
	5. Informs Unit Supervisor task is complete.	Examinee notifies the Unit Supervisor.	_____	_____
<p><u>CUE:</u></p> <p>Acknowledge report of task completion.</p>				
		END		

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: RO SRO

JPM Title: AUX POWER – CROSSTIE BUS 28 AND 29

Revision Number: 02

JPM Number: S-N-f

Task Number and Title: 262L032 Crosstie 480V Busses 25, 26, 27, 28, and 29

K/A Number and Importance: 262001.A4.01 3.4 / 3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: Simulator Control Room In-Plant

Testing Method: Simulate Perform
Alternate Path: Yes No
SRO Only: Yes No

Time Critical: Yes No

Estimated Time to Complete: 11 minutes **Actual Time Used:** _____ minutes

References: DOP 6700-02, rev 16

EVALUATION SUMMARY:

Were all the Critical Elements performed satisfactorily? Yes No

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

Comments: _____

Evaluator's Name (Print): _____

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. An NLO reports that Transformer 28 is overheating.
3. The Unit Supervisor decided that Transformer 28 needs to be de-energized.
4. Consideration of AC loads lost during the evolution has been completed and will have no major impact.
5. TS sections 3.8.7 and 3.8.8 have been checked and need not be referenced again
6. DOP 6800-05, Power Restoration to ATS feeds has been referenced. No actions are necessary.

INITIATING CUE

1. The Unit Supervisor has directed you to perform a dead bus transfer of Bus 28 to Bus 29 in accordance with the DOP 6700-02 hard card.
2. Inform the Unit Supervisor when the task is complete.