Exelon Nuclear

Job Performance Measure

LOS-DG-M3 WITH A LOSS OF THE SAT

JPM Number: B.1.a

Revision Number: 08

Date: 1/21/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

_____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 9. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

1. **Revision 05,** Reformatted, revised to current procedure.

2. **Revision 06,** Verified against current revision of LOS-DG-M3 and revised procedure references. Revised task number to coincide with new task list. Verified against current K&A revision and added an additional ability item.

3. **Revision 07,** Revised in incorporate Revision 47 of LOS-DG-M3 and upgraded to new JPM Template.

4. **Revision 08,** Changed JPM designation from S-DG-04 to B.1.a. Incorporated changes to current procedure rev.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to a full power IC.
2. Place the Simulator in run
3. Start the 1B DG with the Diesel Generator Control Switch on the 1H13-P601 panel.
4. Set speed droop at 50.
5. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs using the JPM Validation Checklist.
6. This completes the setup for this JPM.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. Unit 1 is at 100% power.

2. LOS-DG-M3 is in progress and the applicable steps of Attachment 1B Idle are completed up to and including step 3.1

INITIATING CUE

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

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

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: _____

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

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*7.	Using the 1B Diesel Gen. Governor and Voltage Regulator control switches, RAISE 1B DG load to 1000 kW to 1300 kW and 350KVR to 750 KVAR and MAINTAIN for 2 minutes.	Examinee raises 1B DG load to 1000 kW to 1300 kW and 350 KVAR to 750 KVAR and maintains this for 2 minutes.	____	____	____
CUE:	When Examinee demonstrates the intent of leaving the 1B DG loading at this point for two minutes, you may tell him the two minutes have elapsed.				
8.	Using the 1B Diesel Gen. Governor and Voltage Regulator control switches, RAISE 1B DG load to 1750 kW to 2000 kW and 500KVAR to 1300 KVAR and MAINTAIN for 2 minutes.	Examinee raises 1B DG load to 1750 kW to 2000 kW and 500 KVAR to 1300 KVAR and maintains this for 2 minutes.	____	____	____
CUE	When examinee demonstrates the intent of leaving the 1B DG loading at this point for two minutes, you may tell him the two minutes have elapsed.				
SIM OP	Imf MEE012				
NOTE	At this point, a loss of the SAT occurs that leaves the 1B DG as the only source of power to Bus 143 Step D.4 gives the operator direction when the SAT is lost.	If a trip of the AC feed from grid to a DG supplied bus occurs while DG is synchronized, resulting in DG being only supply to bus, Engine Governor Speed Droop Dial must immediately set to zero (0), frequency 59.5 to 60.5 Hz, and voltage 4050 to 4300 volts.			
*9.	DIRECT that the 1B DG Engine Governor Speed Droop Dial be set at zero (0).	Examinee directs the EO to place the 1B DG Engine Governor Speed Droop Dial to zero (0).	____	____	____

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*10.	ADJUST 1B DG frequency to 59.5 to 60.5 Hz and voltage to 4050 to 4300 volts.	Examinee adjusts 1B DG frequency to 59.5 to 60.5 Hz and voltage to 4050 to 4300 volts.	____	____	____
SIM OP	Mrf IAEEDR1B 0				
SIM OP	EO reports droop set at zero				
Terminating Cue	The JPM is considered complete when the 1B D/G droop is set to zero and the Unit Supervisor is notified.				

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: LOS-DG-M3 with a Loss of the SAT

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

Task Number and Title:

11.007, Given Unit Supervisor authorization, perform the Main Control Room actions for a Diesel Generator Operability Test IAW station procedures.

K/A Number and Importance: 264000m, A4.04, 3.7/3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: **15** minutes **Actual Time Used:** _____ minutes

References: LOS-DG-M3 Rev 53

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

1. Unit 1 is at 100% power.

2. LOS-DG-M3 is in progress and the applicable steps of Attachment 1B Idle are completed up to and including step 3.1

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

SINGLE ROD INSERT DURING AN ATWS

JPM Number: B.1.b

Revision Number: 11

Date: 01/21/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 12. Task description and number, JPM description and number are identified.

_____ 13. Knowledge and Abilities (K/A) references are included.

_____ 14. Performance location specified. (in-plant, control room, or simulator)

_____ 15. Initial setup conditions are identified.

_____ 16. Initiating and terminating cues are properly identified.

_____ 17. Task standards identified and verified by SME review.

_____ 18. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 19. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 20. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 21. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 22. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

5. **Revision 08,** Minor editorial changes. Added this page and scoring instructions.

6. **Revision 09,** Incorporated changes to reflect Rev. 4 of LGA-NB-01. New JPM format.

7. **Revision 10,** Changed step 14 to not critical since failure to perform will not prevent successful completion of task.

   Changed Step 16 to say Continuous Insert or Insert pushbuttons.

   Added ARI was initiated and reset to the initial conditions.

   Revised Steps 8 and 9 to meet Ops expectations (flow change not observable on meter identified but flow will change).

8. **Revision 11,** Changed JPM number from S-NB-04 to B.1.b and revised per current procedure.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

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

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

8. Run the setup Computer Aided Exercise B.1.br1.cae.

9. Insert manual scram

10. Trip A and B TDRFP's.

11. Place the Rx Mode switch in SHUTDOWN.

12. Verify RWM initialized.

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

14. This completes the setup for this JPM.

Job Performance Measure (JPM)

INITIAL CONDITIONS

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

INITIATING CUE

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

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

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: _____

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

Job Performance Measure (JPM)

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

Job Performance Measure (JPM)

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

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Single Rod Insert during an ATWS

JPM Number: B.1.b Revision Number: 11

Task Number and Title:

29515.01, Perform Alternate Rod Insertion IAW LGA-NB-01

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: **10** minutes **Actual Time Used:** _____ minutes

References: LGA-NB-01 Rev 6

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

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

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

Shutdown of the SBGT System

JPM Number: B.1.f

Revision Number: 0

Date: 4/25/03

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 23. Task description and number, JPM description and number are identified.

_____ 24. Knowledge and Abilities (K/A) references are included.

_____ 25. Performance location specified. (in-plant, control room, or simulator)

_____ 26. Initial setup conditions are identified.

_____ 27. Initiating and terminating cues are properly identified.

_____ 28. Task standards identified and verified by SME review.

_____ 29. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 30. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 31. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 32. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 33. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

9. **Revision 00,** Developed for ILT class 02-01 NRC exam.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

15. Reset the simulator to any full power IC.

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

16. Start the U-1 SBGT system by arming and depressing the manual initiation pushbutton. Return the initiation pushbutton to the normal position.

17. Reset the system initiation by depressing the system initiation reset pushbutton.

18. Provide the examinee with LOP-VG-02 when the procedure is located.

Job Performance Measure (JPM)

INITIAL CONDITIONS

U-2 has experienced a High Drywell Pressure condition.

U-1 Reactor Building Ventilation has been restarted.

You are the extra RO.

It has been 6 minutes since the initiation of U-1 SBGT.

LOP-VG-02 Prerequisites are completed.

INITIATING CUE

The US has directed you to shutdown the U-1 SBGT system IAW LOP-VG-02.

Notify him when Chemistry has been notified of the Shutdown.

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.

{B.1.f}

Job Performance Measure (JPM)

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	Notify US that U-1 SBGT will be INOP per T.S. 3.6.4.3	US notified of T.S. 3.6.4.3.	____	____	____
*2.	Stops U-1 SBGT fan.	Places 1VG01C, SBGT Fan Control Switch to PTL.	____	____	____
*3.	Verifies SBGT Cooling Fan auto starts.	Verifies running indication on SBGT Cooling Fan.	____	____	____
4.	Verifies 1VG01A, SBGT Air Heater shuts off as flow decreases.	Verifies heater indication OFF.	____	____	____
*5.	Verify 1VG003, SBGT Outlet Damper closes, then re-opens	Verifies 1VG003 Outlet Damper cycles from closed to open indication.	____	____	____
*6.	PULL Pistol Grip for 1VG001 SBGT Suction from Reactor Building, out.	Pistol Grip for 1VG001, SBGT Suction pulled out.	____	____	____
*7.	Close 1VG001, SBGT Suction from Reactor Building	Pistol Grip for 1VG001, SBGT Suction, taken to close.	____	____	____
8.	Record time of shutdown in the appropriate Unit Log.	Indicates recording taken or notifies unit RO to log.	____	____	____
Cue:	As unit RO, you'll record the shutdown time.				
Cue:	As US, if requested, it's desired to shutdown the Cooling Fan.				
*9.	SBGT Cooling Fan stopped.	1VG02C, SBGT Cooling Fan control switch to STOP.	____	____	____
*10.	Verify Cooling Fan stops.	1VG02C, SBGT Cooling Fan indicates off.	____	____	____
*11.	Verify 1V003, SBGT Train Outlet Damper closes.	Verifies 1VG003, SBGT Train Outlet Damper indication goes from open to closed.	____	____	____
*12.	Notifies Chemistry that SBGT has been shutdown,	Chemistry notified.			
Terminating Cue	The JPM is considered complete when Chemistry is notified.				

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Shutdown of SBGT System

JPM Number: B.1.f Revision Number: 0

Task Number and Title:95.002 Shutdown the SBGT System IAW LOP-VG-02.

K/A Number and Importance: 261000 ; A.4.0.2; 3.1/3.1

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐Simulator ☐ Plant ☐ Control Room

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

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

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

References: LOP-VG-02 Rev. 13

EVALUATION SUMMARY:

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

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

Comments: _____

_____

_____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

U-2 has experienced a High Drywell Pressure condition.

U-1 Reactor Building Ventilation has been restarted.

You are the extra RO.

It has been 6 minutes since the initiation of U-1 SBGT.

INITIATING CUE

The US has directed you to shutdown the U-1 SBGT system IAW LOP-VG-02.

Notify him when Chemistry has been notified of the Shutdown.

Exelon Nuclear

Job Performance Measure

EMERGENCY VENT THE PRIMARY CONTAINMENT IAW LGA-VQ-02

JPM Number: B.1.c

Revision Number: 09

Date: 1/22/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 34. Task description and number, JPM description and number are identified.

_____ 35. Knowledge and Abilities (K/A) references are included.

_____ 36. Performance location specified. (in-plant, control room, or simulator)

_____ 37. Initial setup conditions are identified.

_____ 38. Initiating and terminating cues are properly identified.

_____ 39. Task standards identified and verified by SME review.

_____ 40. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 41. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 42. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 43. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 44. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

10. **Revision 08,** Revised task numbers to reflect current task numbers.
Revised K/A numbers to reflect NUREG 1021 Rev 8
Revised format to meet NTAFT JLOR03 Rev 1

11. **Revision 09,** Changed JPM to B.1.c from S-VQ-02 and incorporated procedure revisions.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

19. Reset the simulator to any full power IC.

20. Run **b.1.c.cae** which performs the following:

    - Insert a hydraulic ATWS (**imf mrd277 65 & imf mrd278 60)**
    - ADS SRV solenoids have failed. (**imf mes012, imf mes008, imf mes013, imf mes011, imf mes014, imf mes010, imf mes009).**
    - 'A' vacuum breaker sticks open
      (imf mca006)
    - Provides dual indication for the vacuum breaker
      (ior q1h20lgp on)
      (ior q1H16lgp on)
    - Insert MSL break
      (imf mnb104 150)
    - **Complete scram actions**

21. Place ECCS in PTL

22. Trip both TDRFPs and close the 1FW010A & 1FW010B valves

23. Start MDRFP and open min flow valve

24. Turn 1B SBLC on

25. Start the VC Emergency Makeup Unit and place the 'A' VC Train's Recirculation Charcoal Filters in operation IAW LGA-VQ-02 Attachment D.

26. Silence, acknowledge and reset annunciators.

27. Monitor/change MSL break to maintain approx. 70# in the chamber.

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

29. This completes the setup for this JPM.

Job Performance Measure (JPM)

INITIAL CONDITIONS

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

INITIATING CUE

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

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

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: _____

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

Job Performance Measure (JPM)

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

Job Performance Measure (JPM)

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

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
	page system, if required.	system.			
26.	IF IA is NOT available to open a 26" VQ pathway then VENT the DW at CR Panel 1PM06J.	Examinee determines IA is available.	____	____	____
27.	IF Suppression Pool level is ≥724' only vent DW.	Examinee determines Suppression Pool level is ≤724'.	____	____	____
*28.	OPEN 1VQ032, SP VENT/PURGE OTLT UPSTRM BYPASS ISOL.	Examinee opens 1VQ032, SP VENT/PURGE OTLT UPSTRM BYPASS ISOL.	____	____	____
*29.	OPEN 1VQ040, SP VENT/PURGE OTLT DWNST ISOL VLV	Examinee opens 1VQ040, SP VENT/PURGE OTLT DWNST ISOL VLV	____	____	____
Cue	When examinee looks at DW pressure, state that it's 70# and steady.				
*30.	IF pressure will not remain LESS THAN the PCPL OPEN 1VQ031, SP VENT/PURGE OTLT UPSTRM ISOL VLV.	Examinee determines that pressure will not remain less than PCPL and opens 1CQ031, SP VENT/PURGE OTLT UPSTRM ISOL VLV.	____	____	____
Cue	When examinee looks at DW pressure, state that it's 65# and slowly decreasing.				
31.	Monitor drywell pressure for decreasing trend.	Examinee monitors drywell pressure on 1PM13J for decreasing trend.	____	____	____
32.	Informs Unit Supervisor of action taken/status.	Informs Unit Supervisor of action taken/status.			
Terminating Cue	Acknowledge report The JPM is considered complete at this time.				

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Emergency vent the Primary Containment IAW LGA-VQ-02

JPM Number: B.1.c Revision Number: 09

Task Number and Title:

29524.02 Reduce Drywell Pressure by Emergency Primary Containment Pressure Relief IAW LGA-VQ-02

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: **10** minutes **Actual Time Used:** _____ minutes

References: LGA-VQ-02 Rev 9

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

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

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

BYPASS A FAILED LOCAL POWER RANGE MONITOR (LPRM)

JPM Number: B.1.d

Revision Number: 03

Date: 1/22/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 45. Task description and number, JPM description and number are identified.

_____ 46. Knowledge and Abilities (K/A) references are included.

_____ 47. Performance location specified. (in-plant, control room, or simulator)

_____ 48. Initial setup conditions are identified.

_____ 49. Initiating and terminating cues are properly identified.

_____ 50. Task standards identified and verified by SME review.

_____ 51. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 52. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 53. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 54. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 55. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

12. **Revision 02,** Utilized new template & made minor editorial changes.

13. **Revision 03,** Changed JPM from S-NR-01 to B.1.d. Verified correct to current procedure.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

30. Reset the simulator to any full power IC

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

31. Go to RUN.

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

33. **On 1H13-P608 record the following LPRM's as bypassed on the appropriate placard:**

APRM A	APRM C	APRM E
08-25C	**08-41B**	**08-41C**
56-41C	**56-25B**	**40-49C**
	32-17C	**08-25A**

34. **Place the LPRM Detectors in BYPASS for the above LPRM's. (A & E not simulated.**

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

36. This completes the setup for this JPM.

Job Performance Measure (JPM)

INITIAL CONDITIONS

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

INITIATING CUE

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

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

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

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

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

JPM Stop Time: _____

Job Performance Measure (JPM)

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

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

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: 4 minutes **Actual Time Used:** _____ minutes

References: LOA-NR-101 Rev 6

EVALUATION SUMMARY:
Were all the Critical Elements performed satisfactorily? ☐ Yes ☐ No

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

The unit is operating near full power.

You are the assist NSO.

LPRM 48-33C has failed downscale.

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

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

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

JPM Number: B.1.e

Revision Number: 01

Date: 1/22/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 56. Task description and number, JPM description and number are identified.

_____ 57. Knowledge and Abilities (K/A) references are included.

_____ 58. Performance location specified. (in-plant, control room, or simulator)

_____ 59. Initial setup conditions are identified.

_____ 60. Initiating and terminating cues are properly identified.

_____ 61. Task standards identified and verified by SME review.

_____ 62. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 63. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 64. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 65. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 66. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

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

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

37. Reset the simulator to IC 38.

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

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

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

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

41. This completes the setup for this JPM.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. A reactor shutdown is in progress.
2. LGP-2-1 is complete up to Step E.1.6.
3. You are the U-1 RO.

INITIATING CUE

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

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

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

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

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

Job Performance Measure (JPM)

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

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

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

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

Task Number and Title:

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

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: 20 minutes **Actual Time Used:** _____ minutes

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

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

1. A reactor shutdown is in progress.

2. LGP-2-1 is complete up to Step E.1.6.

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

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

JPM Number: B.1.g

Revision Number: 00

Date: 1/22/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 67. Task description and number, JPM description and number are identified.

_____ 68. Knowledge and Abilities (K/A) references are included.

_____ 69. Performance location specified. (in-plant, control room, or simulator)

_____ 70. Initial setup conditions are identified.

_____ 71. Initiating and terminating cues are properly identified.

_____ 72. Task standards identified and verified by SME review.

_____ 73. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 74. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 75. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 76. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 77. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

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

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

42. Reset the simulator to IC 148 with the “A” and “B” TDRFP’s running..

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

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

    IOR K4G04PSY False

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

45. This completes the setup for this JPM.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. The Unit is at 48% power.
2. The 'A' and "B" TDRFP are maintaining Reactor Level.
3. Maintenance has just completed work on the 'A' TDRFP Trip Dump Valve.
4. Turbine oil system has been stable for one hour.
5. All prerequisites are complete and SAT.

INITIATING CUE

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

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

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

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*1.	PLACE and HOLD A TDRFP Turb Emerg Gov Lockout handswitch to LOCKED OUT position.	Emerg Gov Lockout handswitch taken to LOCKED OUT position.	____	____	____
2.	OBSERVE the following: • Locked Out light illuminates. • NORMAL light extinguishes • A TDRFP Emerg Gov Lockout Alarm annunciates. • A TDRFP Turb Governor Trip Test RESET light illuminated. • WAIT 10 seconds after the LOCKED OUT light illuminates before performing the next step.	The following observed: • Locked Out light illuminates. • NORMAL light extinguishes • A TDRFP Emerg Gov Lockout Alarm annunciates. • A TDRFP Turb Governor Trip Test RESET light illuminated. • WAIT 10 seconds after the LOCKED OUT light illuminates before performing the next step.	____	____	____
*3.	DEPRESS A TDRFP Turb Emer Gov Trip Test Panel button and OBSERVE the following: • Turb A RESET light extinguishes. • TRIPPED light illuminates. • RFP TRP alarm annunciates. • ALLOW system to flush for 5 seconds. • Release Trip button following above actions.	A TDRFP Turb Emer Gov Trip Test Panel button depressed and the following observed: • Turb A RESET light extinguishes. • TRIPPED light illuminates. • RFP TRP alarm annunciates. • ALLOW system to flush for 5 seconds. • Trip button released.	____	____	____

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*4.	DEPRESS and HOLD A TDRFP RESET Panel button and OBSERVE the following: • TRIPPED light extinguishes • Turb A RESET light illuminates. • RFP Trip alarm CLEARS.	A TDRFP RESET Panel button depressed and following observed: • TRIPPED light extinguishes • Turb A RESET light illuminates. • RFP Trip alarm CLEARS.	____	____	____
5.	RO notifies US of failure to reset	US notified of failure to reset.	____	____	____
*6.	RO notifies NLO at A TDRFP to reset the turbine by pulling the local reset lever.	NLO notified to locally reset the A TDRFP.	____	____	____
NOTE	When NLO notified to locally reset the A TDRFP, **modify K4G04psy to PUSHED.**				
CUE	As NLO at the A TDRFP, report that the A TDRFP trip lever has been pulled.				
*7.	RO observes the following: • TRIPPED light extinguishes. • Turb A RESET light illuminates. • RFP Trip alarm CLEARS.	Following observed: • TRIPPED light extinguishes. • Turb A RESET light illuminates. • RFP Trip alarm CLEARS.	____	____	____
8.	RO releases A TDRFP Turb Emer Gov Trip Reset button 10 sec. After RESET light illuminates.	RO waits 10 sec. After RESET light illuminates before releasing Trip Test button	____	____	____
*9.	RO releases A TDRFP Turb Emer Gov Lockout handswitch and OBSERVES the following: • LOCKED OUT light extinguishes • Normal light illuminates. • Alarm A TDRFP Emerg Gov Lockout Alarm clears.	A TDRFP Turb Emer Gov Lockout handswitch released and following OBSERVED: • LOCKED OUT light extinguishes • Normal light illuminates. • Alarm A TDRFP Emerg Gov Lockout Alarm clears.	____	____	____

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
10.	RO Notifies US the Att. C is complete.	US notified.	____	____	____
Terminating Cue	The JPM is considered complete at this time.				

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Turbine Feedwater Pump Surveillance (LOS-FW-SR1)

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

Task Number and Title:

77.033,Complete the Control Room actions necessary to perform the TDRFP surveillance.

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: **20** minutes **Actual Time Used:** _____ minutes

References: Perform the Turbine Feedwater Pump Surveillance (LOS-FW-SR1Rev. 16) for the A TDRFP

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

1. The Unit is at 48% power.

2. The 'A' and “B” TDRFP are maintaining Reactor Level.

3. Maintenance has just completed work on the 'A' TDRFP Trip Dump Valve.

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

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

JPM Number: B.2.a

Revision Number: 09

Date: 1/23/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 78. Task description and number, JPM description and number are identified.

_____ 79. Knowledge and Abilities (K/A) references are included.

_____ 80. Performance location specified. (in-plant, control room, or simulator)

_____ 81. Initial setup conditions are identified.

_____ 82. Initiating and terminating cues are properly identified.

_____ 83. Task standards identified and verified by SME review.

_____ 84. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 85. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 86. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 87. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 88. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

16. **Revision 07,** Utilized new template & made minor editorial changes.

17. **Revision 08,** Updated to incorporate Revision 8 of LGA-RI-02, added requirement to complete signatures and dates.

18. **Revision 09,** Changed JPM from P-RI-01 to B.2.a for ILT 02-01 evaluation.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

46. No simulator setup required.

Job Performance Measure (JPM)

INITIAL CONDITIONS

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

INITIATING CUE

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

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

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

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

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

Job Performance Measure (JPM)

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

Job Performance Measure (JPM)

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

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

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

JPM Number: B.2.a Revision Number: 09

Task Number and Title:

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

K/A Number and Importance: 2.1.30 3.9/3.4

Suggested Testing Environment: Plant

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: **15** minutes **Actual Time Used:** _____ minutes

References: LGA-RI-02 Rev 8

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

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

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

PERFORM THE LOCAL ACTIONS TO START UP THE MAIN STACK WRGM

JPM Number: B.2.b

Revision Number: 01

Date: 1/23/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 89. Task description and number, JPM description and number are identified.

_____ 90. Knowledge and Abilities (K/A) references are included.

_____ 91. Performance location specified. (in-plant, control room, or simulator)

_____ 92. Initial setup conditions are identified.

_____ 93. Initiating and terminating cues are properly identified.

_____ 94. Task standards identified and verified by SME review.

_____ 95. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 96. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 97. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 98. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 99. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

19. **Revision 00,** New JPM

20. **Revision 01,** Changed JPM designation from P-PR-02 to B.2.b for ILT 02-01 evaluation. Checked JPM per new procedure rev.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

47. No setup required.

48. Provide a copy of LOP-PR-04 "Startup, Operation, and Troubleshooting of the Station Vent Stack Wide Range Radiation Monitoring System" when examinee describes proper location to locate one.

Job Performance Measure (JPM)

INITIAL CONDITIONS

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

INITIATING CUE

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

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

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

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1.	On panel 0PLE6J, VERIFY local C/S for Aux Sample Pump is in AUTO.	The Examinee verifies that the C/S for the Aux Sample Pump is in AUTO.	____	____	____
CUE:	The Switch is in AUTO.				
2.	On panel 0PLD5J, VERIFY the Mid./Hi Range Sample Pump Discharge flow valve is open.	The Examinee locates and verifies discharge valve open.	____	____	____
NOTE	The valve is labeled 0PLD5J High Range Outlet Stop (No EPN)				
CUE:	The valve is open.				
*3.	On panel 0PLD5J, START the Mid./Hi Range Sample Pump by placing the C/S to ON.	The Examinee starts the Mid./Hi Range Sample Pump by placing the C/S to ON.	____	____	____
CUE:	The Mid/Hi Range Sample pump flow indication 0D18-529 is 1.6 CFM.				
*4.	On panel 0PLD5J, SHUTDOWN the Low Range Sample Pump by placing the C/S to OFF.	The Examinee places the C/S to OFF for the Low Range Sample Pump.	____	____	____
CUE:	The Low Range Sample Pump flow indication 0D18-528 is 0.				
*5.	VERIFY the Aux Sample Pump AUTO STARTS.	The Examinee VERIFIES the Aux Sample Pump AUTO STARTS.	____	____	____
CUE:	The Aux Sample Pump flow indicator 0D18-N532 indicates .8 CFM.				

Job Performance Measure (JPM)

*6.	VERIFY isokinetic flow by taking the sum of the Aux Sample Pump Local Flow Indicator (0D18-N532) and the Mid/Hi Range Sample Pump RM-23 reading (Mon 033) as the total sample flow. Compare the Stack Flow (Mon 029) and VERIFY within the Attachment B limits.	The Examinee verifies flow within Att. B limits.	____	____	____
CUE:	If requested, Aux Sample flow from 0D18-N1532 is .8 CFM. Mid/Hi Range Sample Pump flow is 1.6 CFM.(from Control Room indication) Main Vent Stack Flow is 10 x 10^5 CFM (from Control Room indication.				
*7.	Verify Limits within Att. B	The Examinee adds .8 and 1.6 to establish sample flow rate of 2.4 CFM which is within limits of Att B and informs US he is complete with step E.8.6.	____	____	____
CUE:	When US informed flow within limits. Respond to examinee "JPM is complete".				

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Perform the In Plant Actions to Start Up the WRGM

JPM Number: B.2.b Revision Number: 01

Task Number and Title:

52.01 Perform the in plant actions to startup the station Vent Stack Wide Range Radiation Monitoring System.

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

Suggested Testing Environment: Plant

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

Estimated Time to Complete: _20_ minutes **Actual Time Used:** _____ minutes

References: LOP-PR-04 Revision 19

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS

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

INITIATING CUE

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

Exelon Nuclear

Job Performance Measure

VERIFICATION OF LOW PRESSURE HEATER 13B TRIP

JPM Number: B.2.c

Revision Number: 01

Date: 1/23/2003

Developed By: _____ _____

Facility Author **Date**

Approved By: _____ _____

Facility Representative **Date**

Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 through 11 below.

_____ 100. Task description and number, JPM description and number are identified.

_____ 101. Knowledge and Abilities (K/A) references are included.

_____ 102. Performance location specified. (in-plant, control room, or simulator)

_____ 103. Initial setup conditions are identified.

_____ 104. Initiating and terminating cues are properly identified.

_____ 105. Task standards identified and verified by SME review.

_____ 106. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

_____ 107. Verify the procedure referenced by this JPM matches the most current revision of that procedure:
Procedure Rev. _____ Date _____

_____ 108. Pilot test the JPM:
a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

_____ 109. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 110. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Job Performance Measure (JPM)

Revision Record (Summary)

21. **Revision 00,** New JPM.

22. **Revision 01,** Changed JPM designation from P-HD-03 to B.2.c for ILT 02-01 evaluation. Revised per current procedure rev.

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

49. No setup required.

50. Provide LOA-HD-101 when requested.

Job Performance Measure (JPM)

INITIAL CONDITIONS

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

INITIATING CUE

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

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

Information For Evaluator's Use:

UNSAT requires written comments on respective step.

* Denotes CRITICAL steps.

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

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

The timeclock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

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

Job Performance Measure (JPM)

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
*4.	AT 1LIC-HD046 MANUALLY CLOSE 1HD032B, 14B Normal Drain.	The Examinee simulates balancing air pressure and manually closing 1HD032B by placing the controller in Manual and decreasing air pressure to the valve.	____	____	____
CUE:	The valve has green closed indication.				
Terminating Cue	The JPM is considered complete when the Unit 1 NSO is informed that inputs to the 13B Heater have been isolated.				

JPM Stop Time: _____

Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Verification of Low Pressure Heater 13A Trip

JPM Number: B.2.c Revision Number: 01

Task Number and Title:

79.01 "Respond to a Loss of Feedwater Heater(s)"

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

Suggested Testing Environment: Plant

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

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

References: LOA-HD-101 Rev 7

EVALUATION SUMMARY:

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Job Performance Measure (JPM)

INITIAL CONDITIONS

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

INITIATING CUE

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

Job Performance Measure (JPM)