Exelon Nuclear

Job Performance Measure

Control Rod Exercise

JPM Number: S-N-a

Revision Number: 00

Date: 10/05

Developed By: _____ _____

Instructor **Date**

Approved By: _____ _____

Training Department **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

From Bank: JPM S-0300-04

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Reset the simulator to any IC with control rod C-13 at position 48.

2. Verify NO Control Rods are selected.

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.

3. 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.

4. This completes the setup for this JPM.

DOCUMENT PREPARATION

Markup a copy of DOS 0300-01 as follows:

- Mark ALL Prerequisites complete EXCEPT for enabling the ROD EXERCISE function of the Rod Worth Minimizer.
- Mark Unit as “2” on Checklist 1.
- Mark “NO” for Stall Flows and Drive Water Pressure required on Checklist 1.
- Mark all rods Except C-13 N/A on Checklist 1.
- Print out 2 copies of a Control Rod position scan after the simulator has been setup. Designate one as the “before exercising” copy and the other as the “after exercising” copy.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. The CRD System engineer has requested exercising Control Rod C-13.

INITIATING CUE

1. The Unit Supervisor has directed you to perform DOS 0300-01, Control Rod Exercise, for Control Rod C-13 ONLY.
2. The prerequisites are completed except for enabling the ROD EXERCISE function of the Rod Worth Minimizer.
3. Stall flow and drive pressure are NOT required.
4. 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.

If a CRITICAL step has more than one part, then:

- (filled bullet) indicates a CRITICAL part of the step.
- (open bullet) indicates a NON-CRITICAL part of the 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 the included copies of DOS 0300-01 and DOP 0400-02.				
*1. Enable the ROD EXERCISE function of the Rod Worth Minimizer per DOP 0400-02, Rod Worth Minimizer. (RWM).	• Selects Special Modes on RWM. • Selects Rod Exercise on RWM.	_____	_____	_____
Note: Although not a procedure step a second verifier is required. Second Verifier Duties: ➢ Proper rod selected ➢ Insert and Withdraw limits understood. ➢ Verifies RWM is in exercise mode, has no errors and has blocks enabled. ➢ Check off each control rod movement on the CRD Exercise Checklist.				
2. Request a second verifier	VERIFIES second verifier available.	_____	_____	_____
Cue: Inform examinee that you will perform duties of second verifier.				
Note: Examinee may reference DOP 9950-03 to perform the next step.				

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
3. Obtain initial Control Rod position information.	At any NSO Process Computer Display, navigate to and print the Rod Monitoring display.	____	____	____
Cue: If an error occurs when the examinee attempts to print a control rod position screen, provide the examinee with the "before exercise" copy of the rod position print out.				
Note: If inserted past position 46, performs DOA 0300-12. Evaluator will have to determine if proper steps are followed based on current conditions.				
*4. Select Control Rod C-13.	Depresses Select Pushbutton for Control Rod C-13.	____	____	____
*5. Insert Control Rod C-13 to notch 46 and verify latched.	• Momentarily places Rod Movement Control switch to Rod In. o Verifies Control Rod C-13 latches at position 46.	____	____	____
6. Verify indicated control rod position changes during movement.	Monitors rod position changes to 46 on Four Rod and/or Full Core display.	____	____	____
*7. While returning the control rod to position 48, perform the following: ➢ Apply continuous withdraw signal utilizing the Rod Out Notch Override switch.	Simultaneously holds… • Rod Movement Control Switch to Rod Notch Out • Rod Out Notch Override Switch to Notch Out Override	____	____	____
8. ➢ Verify indicated control rod position changes during movement.	o Monitors rod position changes to 48 on Four Rod and/or Full Core display.	____	____	____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
9. ➢ Verify control rod does not go to the overtravel position.	o Verifies NO loss of position indication on Four Rod display or double red dashes on Full Core display.	____	____	____
*10. Removes continuous withdraw signal.	Releases: • Rod Movement Control Switch • Rod Out Notch Override Switch	____	____	____
11. Checks off C-13 control rod move on the CRD exercise checklist.	CRD checklist marked for C-13 control rod move.	____	____	____
12. Place RWM in desired mode.	Selects EXIT function on RWM.	____	____	____
Cue: If asked as the Unit Supervisor, respond: return the RWM to the Primary screen.				
13. Obtain an edit of final Control Rod positions.	At any NSO Process Computer Display, navigate to and print the Rod Monitoring display.	____	____	____
Cue: If an error occurs when the examinee attempts to print a control rod position screen, provide the examinee with the "after exercise" copy of the rod position print out.				
14. Verify all Control Rods are at their initial positions.	VERIFIES all Control Rods are at their initial positions.	____	____	____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
15. Initial "CRD Exercising Complete" block on Checklist 1.	Initials "CRD Exercising Complete" block on Checklist 1.	_____	_____	_____
16. Inform Unit Supervisor that Control Rod C-13 exercising is complete and second verification and Unit Supervisor verification is required.	Informs Unit Supervisor that Control Rod C-13 exercising is complete and second verification and Unit Supervisor verification is required.	_____	_____	_____
Cue: Acknowledge the report as the Unit Supervisor				
	END			

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____
Job Title: RO❑ SRO☑

JPM Title: Control Rod Exercise
JPM Number: S-N-a **Revision Number**: 00
Task Number and Title: 201L006, Perform daily/weekly CRD exercise.

K/A Number and Importance: 201003A4.02 3.5 /3.5

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑Simulator ❑Plant ❑Control Room

Testing Method: ❑ Simulate **Alternate Path:** ❑ Yes ☑ No
☑ Perform **SRO Only:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

Estimated Time to Complete: 5 minutes **Actual Time Used:** _____minutes

References: DOS 0300-01, R41, Control Rod Exercise
DOP 0400-02, R20, Rod Worth Minimizer

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. The CRD System engineer has requested exercising Control Rod C-13.

INITIATING CUE

1. The Unit Supervisor has directed you to perform DOS 0300-01, Control Rod Exercise, for Control Rod C-13 ONLY.
2. The prerequisites are completed except for enabling the ROD EXERCISE function of the Rod Worth Minimizer.
3. Stall flow and drive pressure are NOT required.
4. Inform the Unit Supervisor when the task is complete.

Job Performance Measure (JPM)

Exelon Nuclear

Job Performance Measure

Perform Core Spray Pump Test With Torus Available

JPM Number: S-N-b

Revision Number: 00

Date: 10/05

Developed By: _____ _____
Instructor **Date**

Approved By: _____ _____
Training Department **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

From Bank: S-1400-04

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Core Spray pump operability surveillance can be performed from any IC with Core Spray in the normal standby lineup.

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

2. Start the LPCI/CS room cooler fans.
3. Enter the following Expert commands to set up an automatic trigger to trip the Core Spray pump after the test valve is opened.

NOTE: The trigger assignment can be changed to any other available trigger to accommodate running this JPM concurrently with other JPMs.

Event Trigger 1 Activates when MO 1402-4B OPEN light turns ON.

After 10 sec, inserts a 2B Core Spray pump trip.

Enter the following Expert commands:

- trgset 1 "cslop4b"
- imf csppbflt (1 10)

DOCUMENT PREPARATION

Markup a copy of DOS 1400-05 as complete up through Step I.6. (Ready to start 2B Core Spray Pump per step I.7)

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. The Unit 2 Core Spray operability surveillance is due.
2. The operability surveillance for the 2A Core Spray pump has already been completed (system is filled and vented).
3. Required valve operability surveillance has been completed.
4. Unit 2 NLO is standing by in the corner room.
5. LPCI/Core Spray Room Coolers are running.
6. DOS 1400-05 is complete up to point of starting 2B Core Spray pump.

INITIATING CUE

1. The Unit Supervisor directs you to perform DOS 1400-05 step I.7 for the 2B Core Spray pump.
2. All applicable Prerequisites have been met.
3. Your Pre-Job Brief has been completed.
4. Notify the Unit Supervisor upon completion of step I.7.

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.

If a CRITICAL step has more than one part, then:

- (filled bullet) indicates a CRITICAL part of the step.
  - (open bullet) indicates a NON-CRITICAL part of the 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 time clock 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 the provided copy of DOS 1400-05				
1. Verify the following valve line up. • MO 2-1402-4B Closed • MO 2-1402-38B Open • 2-1402-6B Open • MO 2-1402-25B Closed • MO 2-1402-3B Open • 2-1402-40B-SV Closed	Verifies the following: Green Closed light On Green Open light On Green Open light On Green Closed light On Green Open light On Directs NLO to Verify 2-1402-40B SV Closed.	_____	_____	_____
CUE 2-1402-40B, INST SV is closed.				
2. Verify 2B CORE SPRAY MOTOR has adequate lubrication per step I.7.b.	Contacts NLO to verify 2B CS Motor oil level +0 to –1/8 inch of the Oil Sightglass Standstill Line.	_____	_____	_____
CUE 2B Core Spray motor oil level is normal (within +0 to –1/8 inch band) per step I.7.b.				
3. Verify 2B LPCI/CS Room Cooler is operating properly per step I.7.c.	Contacts NLO to verify proper room cooler operation.	_____	_____	_____
CUE 2B LPCI/CS room cooler is operating normally per step I.7.c.				
4. Direct NLO to open 2-1402-40B-SV and report pressure per step I.7.d & e.	Directs SV 2-1402-40B Open.	_____	_____	_____
CUE 2-1402-40B Inst SV is Open per step I.7.d. Pressure is 7 psig per step I.7.e.				

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
5. Record suction pressure provided by NLO.	Pressure of 7 psig recorded on Data Sheet 1.	_____	_____	_____
6. Calculate 2-1402-8B initial closed DP.	DP Calculated: 2-1450-1B _____ psig Minus 2-1402-40B _____psig	_____	_____	_____
*7. Close PP DISCH VLV, MO 2-1402-24B	Rotates MO 2-1402-24B C/S CCW to Close. Only the Red Closed light illuminated.	_____	_____	_____
*8. Start 2B CORE SPRAY Pump.	Rotates 2B Core Spray Pump C/S CW Only the Red On light illuminated	_____	_____	_____
Note 2B Core Spray Pump overcurrent trip malfunction is automatically inserted 10 seconds after the 2-1402-4B valve has dual indication				
*9. Open FLOW TEST VLV MO 2-1402-4B.	Rotates and holds MO 2-1402-4B Control switch CW to Open.	_____	_____	_____
BEGIN ALTERNATE PATH				
10. Acknowledge and report alarm for 2B CS pump trip.	Acknowledges alarm and makes report.	_____	_____	_____
CUE Acknowledge report.				
*11. Immediately Close 2-1402-4B.	Rotates and holds MO 2-1402-4B Control switch CCW to Close until only Green Closed light is illuminated.	_____	_____	_____

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
12. Enters DAN for Core Spray pump trip.	Enters DAN 902-3-B-5.	_____	_____	_____
13. May dispatch operator to check the pump and switch gear.	NLO dispatched to pump. NLO dispatched to Bus 24-1	_____	_____	_____
CUE Acknowledge requests.				
14. May enter DOA 6500-10, for 4kV breaker trip.	States procedure should be entered.	_____	_____	_____
CUE If examinee enters DOA 6500-10, respond that the assist NSO will execute that procedure.				
CUE If examinee terminates, or requests permission to terminate the surveillance OR If examinee references the DAN for pump trip and has at least considered the actions to take, then cue: Terminate the surveillance. Leave the system in the current lineup. Someone else will be assigned to verify the system is restored to normal.				
15. Notify Unit Supervisor of task completion.	Unit Supervisor notified of task completion.	_____	_____	_____
CUE Acknowledge report of task completion.				
	END			

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____
Job Title: ❑ RO ☑ SRO

JPM Title: Perform Core Spray Pump Test With Torus Available
JPM Number: S-N-b **Revision Number**: 00
Task Number and Title: 209L004

K/A Number and Importance: 209001A4.01 3.8/3.6

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ☑ Perform **Alternate Path:** ☑ Yes ❑ No **SRO Only:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

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

References: DOS 1400-05, R31, Core Spray System Pump Test With Torus Available
DOP 040-01, Station Motor Operated Valves
DAN 902-3 B-5, Core Spray PP Trip

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)

Job Performance Measure (JPM)

Evaluator's Signature: _____ **Date**: _____

INITIAL CONDITIONS

1. The Unit 2 Core Spray operability surveillance is due.
2. The operability surveillance for the 2A Core Spray pump has already been completed (system is filled and vented).
3. Required valve operability surveillance has been completed.
4. Unit 2 NLO is standing by in the corner room.
5. LPCI/Core Spray Room Coolers are running.
6. DOS 1400-05 is complete up to point of starting 2B Core Spray pump.

INITIATING CUE

1. The Unit Supervisor directs you to perform DOS 1400-05 step I.7 for the 2B Core Spray pump.
2. All applicable Prerequisites have been met.
3. Your Pre-Job Brief has been completed.
4. Notify the Unit Supervisor upon completion of step I.7.

Exelon Nuclear

Job Performance Measure

Manually Operate the Isolation Condenser

JPM Number: S-N-c

Revision Number: 00

Date: 10/05

Developed By: _____ _____
Instructor **Date**

Approved By: _____ _____
Training Department **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 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: DOP 1300-03 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)

From Bank: S-1300-01

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS:

1. JPM can be conducted with any IC/setup where reactor pressure is greater than 150 psig, but less than the Isolation condenser auto initiation setpoint.
2. Close the Isolation Condenser 2-1301-17 and 2-1301-20 Vent Valves as Initial Conditions for this JPM state that Unit 2 has a Group I Isolation condition.
3. Verify Hardcard for Isolation Condenser Manual Operation erased and at its proper location.

REMOTES/ALARMS REQUIRED

None

MALFUNCTIONS REQUIRED

None

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. A transient has occurred on Unit 2 resulting in a Group I Isolation.
2. Due to the transient, Emergency Depressurization is required.
3. The Isolation Condenser has NOT auto-initiated.

INITIATING CUE

1. The Unit Supervisor has directed you to initiate the Isolation Condenser to maximum flow and establish makeup flow.
2. Use Hardcards.
3. Notify the Unit Supervisor upon task completion.

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.

If a CRITICAL step has more than one part, then:

- (filled bullet) indicates a CRITICAL part of the step.
- (open bullet) indicates a NON-CRITICAL part of the 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 time clock starts when the candidate acknowledges the initiating cue.

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
1. Obtain Hardcard for Isolation Condenser Manual Operation.	Obtains Hardcard for Isolation Condenser Manual Operation from 902-3 panel book rack.	____	____	____
Note The 2-1301-17 & 2-1301-20 valves will already be Closed due to Group I Isolation.				
2. Close the 2-1301-17 and 2-1301-20 valves.	Determines 2-1301-17 & 1301-20 Red Closed lights illuminated.	____	____	____
*3. Rotate HAND/RESET to HAND position and release.	Rotates HAND/RESET to HAND (CW) and releases.	____	____	____
4. Acknowledge annunciator 902(3)-3 B-4, ISOL CONDR VLVS OFF NORMAL, alarms.	Acknowledges annunciator 902(3)-3 B-4, ISOL CONDR VLVS OFF NORMAL, alarms.			
*5. Open the 2-1301-3 valve.	• Places 2-1301-3 valve C/S to the Open position. o Only the Red OPEN light is illuminated.	____	____	____
*6. Open the 2-4399-74 valve.	• Places 2-4399-74 valve C/S to Open position. o Only Red OPEN light is illuminated.	____	____	____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
*7. Start one ISOL CNDR M-U PP from 923-1 panel.	• Places 2/3A or 2/3B ISOL CNDR M-U PP C/S to Close. o Amber TRIP light illuminates and then extinguishes. o Red ON light is illuminated. o 923-1 A-6 "ISO CONDR DEMIN WTR M-U TROUBLE" annunciator illuminated – alarm acknowledged.			
Note Examinee may report IC initiated to max flow prior to monitoring level.				
8. Open/Close 2-4399-74 valve as needed to maintain level				
9. Notify Unit Supervisor of task completion.	Unit Supervisor notified of task completion.			
CUE Acknowledge report of task completion.				
	END			

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____
Job Title: ❑ RO ☑ SRO

JPM Title: Manually Operate the Isolation Condenser

JPM Number: S-N-c **Revision Number**: 00

Task Number and Title: 207L003, Manually Operate the Isolation Condenser

K/A Number and Importance: 207000A4.07 4.2/4.3

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑ Simulator ❑ Plant ❑Control Room

Testing Method: ❑ Simulate **Alternate Path:** ❑ Yes ☑ No
☑ Perform **SRO Only:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

Estimated Time to Complete: _5__minutes **Actual Time Used:** _____minutes

References: DOP 1300-03, R23, Manual Operation of the Isolation Condenser

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. A transient has occurred on Unit 2 resulting in a Group I Isolation.
2. Due to the transient, Emergency Depressurization is required.
3. The Isolation Condenser has NOT auto-initiated.

INITIATING CUE

1. The Unit Supervisor has directed you to initiate the Isolation Condenser to maximum flow and establish makeup flow.
2. Use Hardcards.
3. Notify the Unit Supervisor upon task completion.

Job Performance Measure (JPM)

Exelon Nuclear

Job Performance Measure

Verify Spurious Group 3 Isolation – Incomplete

JPM Number: S-N-d

Revision Number: 00

Date: 10/05

Developed By: _____ _____
Instructor **Date**

Approved By: _____ _____
Training Department **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

Previously used JPM S-1200-03 (ILT 03-1 Cert Exam)

SIMULATOR SETUP INSTRUCTIONS

5. Reset the simulator to any IC with RWCU operating with a RWCU Recirc PP operating.

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.

6. 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.

7. Enter the following Expert commands:
   - IMF CIRWCUAP (RWCU incomplete inboard isolation)
   - IMF CIRWCUBP (RWCU incomplete outboard isolation)
   - IMF CIRWCUI (Spurious RWCU Isolation Circuit Failure – above malfuctions must be entered prior to this one being entered)
   - IMF SER0957 ON (Group 3 Isolation Initiated alarm – relay 595-105A)
   - IMF SER1054 ON (Group 3 Isolation Initiated alarm – relay 595-105B)

8. Acknowledge alarms.

9. Verify MO 2-1201-1 & 2 remained open.

10. This completes the setup for this JPM.

Job Performance Measure (JPM)

INITIAL CONDITIONS

2. A spurious Group 3 isolation has occurred.

INITIATING CUE

5. The Unit 2 Unit Supervisor has directed you to verify the Group 3 isolation is complete.
6. 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.

If a CRITICAL step has more than one part, then:

- (filled bullet) indicates a CRITICAL part of the step.
  - (open bullet) indicates a NON-CRITICAL part of the 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 #
1. Examinee acquires DAN 902-5 D-5, GROUP 3 ISOLATION INITIATED or Hard Card.	Examinee acquires DAN 902-5 D-5, GROUP 3 ISOLATION INITIATED hard card or DAN.	_____	_____	_____
2. Examinee verifies closed: RWCU Valves • MO 2-1201-1A • MO 2-1201-3 • MO 2-1201-7 • MO 2-1201-1 • MO 2-1201-2	Verifies RWCU valves closed by checking each valve's OPEN light OFF and CLOSED light LIT. Examinee recognizes that MO 2-1201-1 & 2-1201-2 did not close.	_____	_____	_____
*3. Close RWCU Valve MO 2-1201-1	• Momentarily places RWCU Valve MO 2-1201-1 control switch to the CLOSE position. o Verifies CLOSE light turns ON immediately. o Verifies OPEN light turns OFF when valve full closes.	_____	_____	_____
*4. Close RWCU Valve MO 2-1201-2	• Momentarily places RWCU Valve MO 2-1201-2 control switch to the CLOSE position. o Verifies CLOSE light turns ON immediately. o Verifies OPEN light turns OFF when valve full closes.	_____	_____	_____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
5. Examinee verifies closed: SDC Valves • MO 2-1001-1A • MO 2-1001-1B • MO 2-1001-2A • MO 2-1001-2B • MO 2-1001-2C • MO 2-1001-4A • MO 2-1001-4B • MO 2-1001-4C • MO 2-1001-5A • MO 2-1001-5B	Verifies SDC valves closed by checking each valve's OPEN light OFF and CLOSED light LIT.	_____	_____	_____
6. Informs the Unit Supervisor Group 3 isolation has been verified complete.	Report Group 3 isolation complete and MO 2-1201-1 and MO 2-1201-2 failed to close automatically.	_____	_____	_____
CUE Respond as US when examinee informs the US the task is complete.				
	END			

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____
Job Title: RO❑ SRO☑

JPM Title: Verify Spurious Group 3 Isolation - Incomplete
JPM Number: S-N-d **Revision Number**: 00
Task Number and Title: 295L022, Initiate/Verify automatic actuations of Emergency Systems.

K/A Number and Importance: 223002A4.01 3.6 /3.5

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑Simulator ❑Plant ❑Control Room

Testing Method: ❑ Simulate ☑ Perform **Alternate Path:** ☑ Yes ❑ No **SRO Only:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

Estimated Time to Complete: 5 minutes **Actual Time Used:** _____minutes

References: DAN 902(3)-5 D-5 (hardcard), 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. A spurious Group 3 isolation has occurred.

INITIATING CUE

1. The Unit 2 Unit Supervisor has directed you to verify the Group 3 isolation is complete.
2. Inform the Unit Supervisor when the task is complete.

Job Performance Measure (JPM)

Exelon Nuclear

Job Performance Measure

Transfer Auxiliary Power to TR-21 from TR-22

JPM Number: S-N-e

Revision Number: 00

Date: 10/05

Developed By: _____ _____
Instructor **Date**

Approved By: _____ _____
Training Department **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

New JPM

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS:

1. Initialize in IC 10 OR an IC where the following conditions exist:
    - Recirc pumps at minimum speed.
    - ONLY 1 RFP and 2 Condensate pumps running.
    - Generator on line with normal TR-21 and TR-22 lineup.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. Unit 2 is performing a special test procedure for the electric plant.
2. The next step is to transfer Auxiliary Power to TR-21.
3. Another operator will verify TR-21 loading remains below the restrictions of the procedure.

INITIATING CUE

The Unit Supervisor has directed you to transfer Auxiliary Power from TR-22 to TR-21 in accordance with DOP 6500-01.

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.

If a CRITICAL step has more than one part, then:

- (filled bullet) indicates a CRITICAL part of the step.
- (open bullet) indicates a NON-CRITICAL part of the 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: This JPM has two parts, which can be done in any order. Go to the appropriate section based on the examinees actions.					
Note	Provide the examinee the included copy of DOP 6500-01.				
		Transfer Bus 22 to TR-21			
*1.	Position appropriate synchroscope selector switch to On.	• Rotates TR-21 to Bus 22 Synchroscope selector switch CW to ON. o Verify incoming and running voltages ~ equal. o Verify Synchronizing meter at 12 o'clock position and not rotating. o Verify Synchronizing meter lights not glowing.	_____	_____	_____
Que:	If the incoming and running voltages are NOT approximately equal, inform the examinee that they are approximately equal.				
*2.	Position appropriate breaker control switch to Close.	• Rotates TR-21 to Bus 22 ACB control switch CW to Close. o Verify Synchronizing meter at 12 o'clock. o TR-21 to Bus 22 ACB red closed light illuminated. o Annunciator 902-8 D-2 is in alarm	_____	_____	_____

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment #
*3.	Open breaker of power source being removed.	• Rotates TR-22 to Bus 22 ACB CCW to Trip. o TR-22 to Bus 22 ACB Green Open light illuminated. o Annunciator 902-8 D-2 resets.	_____	_____	_____
4.	Return appropriate Synchroscope switch to Off.	Rotates TR-21 to Bus 22 Synchroscope selector switch CCW to Off.	_____	_____	_____
5.	Verify normal Bus 22 indications.	Verifies Bus 22 amps and volts normal.	_____	_____	_____
Transfer Bus 24 to TR-21					
*6.	Position appropriate synchroscope selector switch to On.	• Rotates TR-21 to Bus 24 Synchroscope selector switch CW to ON. o Verify incoming and running voltages ~ equal. o Verify Synchronizing meter at 12 o'clock position and not rotating. o Verify Synchronizing meter lights not glowing.	_____	_____	_____
Que:	If the incoming and running voltages are NOT approximately equal, inform the examinee that they are approximately equal.				

Job Performance Measure (JPM)

PERFORMANCE CHECKLIST		STANDARDS	SAT	UNSAT	Comment #
*7.	Position appropriate breaker control switch to Close.	• Rotates TR-21 to Bus 24 ACB control switch CW to Close. o Verify Synchronizing meter at 12 o'clock. o TR-21 to Bus 24 ACB red closed light illuminated. o Annunciator 902-8 B-5 in alarm.	_____	_____	_____
*8.	Open breaker of power source being removed.	• Rotates TR-22 to Bus 24 ACB CCW to Trip. o TR-22 to Bus 24 ACB Green Open light illuminated. o Annunciator 902-8 B-5 resets.	_____	_____	_____
9.	Return appropriate Synchroscope switch to Off.	Rotates TR-21 to Bus 24 Synchronization Switch CCW to Off.	_____	_____	_____
10.	Verify normal Bus 23 indications.	Verifies Bus 24 amps and volts normal.	_____	_____	_____
		END			

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____
Job Title: RO❑ SRO☑

JPM Title: Transfer Auxiliary Power to TR-21 from TR-22
JPM Number: S-N-e **Revision Number**: 00
Task Number and Title: 262L024, Transfer a 4160 volt bus between power supplies.

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate **Alternate Path:** ❑ Yes ☑ No
☑ Perform **SRO Only:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

Estimated Time to Complete: _14__minutes **Actual Time Used:** _____minutes

References: DOP 6500-01, R08, "Transfer of 4160 Volt Bus Power Supply"

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 2 is performing a special test procedure for the electric plant.
2. The next step is to transfer Auxiliary Power to TR-21.
3. Another operator will verify TR-21 loading remains below the restrictions of the procedure.

INITIATING CUE

The Unit Supervisor has directed you to transfer Auxiliary Power from TR-22 to TR-21 in accordance with DOP 6500-01.

Job Performance Measure (JPM)

Exelon Nuclear

Job Performance Measure

Driving Tip Detectors To The Isolation Test Position

JPM Number: S-N-f

Revision Number: 00

Date: 10/05

Developed By: _____ _____
Instructor **Date**

Approved By: _____ _____
Training Department **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

New JPM

SIMULATOR SETUP INSTRUCTIONS

11. Reset the simulator to any IC with the Group 2 Isolation reset.

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.

12. Enter the following Expert command:

    - SET NIRK11R = FALSE (changes the TIP Group 2 Isolation relay status to the NOT reset state)

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

3. Post Maintenance Testing is required on the 2A TIP machine.
4. A Group 2 Isolation occurred several minutes ago, was reset on the 902-5 panel and restoration is in progress.
5. Radiation Protection and Chemistry groups have been notified of operation of the TIP detector.

INITIATING CUE

The Unit Supervisor has directed you to drive the 2A TIP Detector in 20 to 25 digits from its current position by using step G.3 of DOP 0700-06, Traversing Incore Probe (TIP) System Operation.

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.

If a CRITICAL step has more than one part, then:

- (filled bullet) indicates a CRITICAL part of the step.
- (open bullet) indicates a NON-CRITICAL part of the 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)

Job Performance Measure (JPM)

JPM Start Time: _____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
Note: Provide the examinee the included copy of DOS 7500-02.				
1. Verify all BALL VALVES closed at Panel 902-13	Verifies CLOSED light lit for ALL BALL VALVES at Panel 902-13. (five valves)	_____	_____	_____
2. IF a Group 2 Isolation has occurred, THEN reset the TIP System by performing Step G.4.	Since a Group 2 Isolation has occurred, verifies that Group 2 TIP Isolation reset light is NOT lit. Proceeds to Step G.4.			
BEGIN ALTERNATE PATH				
3. Verify the Group 2 Isolation has been reset.	Condition met from initiating cue. Examinee still may verify the Group 2 Isolation has been reset at the 902-5 panel by verifying alarm window 902-5 E-5 is NOT lit.	_____	_____	_____
4. Verify MANUAL switches in OFF: o Drive Control Ch A o Drive Control Ch B o Drive Control Ch C o Drive Control Ch D o Drive Control Ch E	Verifies MANUAL switches in OFF for: o Drive Control Ch A o Drive Control Ch B o Drive Control Ch C o Drive Control Ch D o Drive Control Ch E	_____	_____	_____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
5. Verify all BALL VALVES closed: o Vlv Control Ch 1 o Vlv Control Ch 2 o Vlv Control Ch 3 o Vlv Control Ch 4 o Vlv Control Ch 5	Verifies all BALL VALVES closed for: o Vlv Control Ch 1 o Vlv Control Ch 2 o Vlv Control Ch 3 o Vlv Control Ch 4 o Vlv Control Ch 5	____	____	____
6. Verify MAN. VALVE CONTROL switches in CLOSE: o Drive Control Ch A o Drive Control Ch B o Drive Control Ch C o Drive Control Ch D o Drive Control Ch E	Verifies MAN. VALVE CONTROL switches in CLOSE for: o Drive Control Ch A o Drive Control Ch B o Drive Control Ch C o Drive Control Ch D o Drive Control Ch E	____	____	____
*7. Momentarily depress GROUP 2 TIP ISOLATION RESET pushbutton; AND, Verify the green indicator light comes on.	• Momentarily depresses GROUP 2 TIP ISOLATION RESET pushbutton; AND, o Verifies the green indicator light comes on.	____	____	____
8. Verify NO TIP Detector movement occurs.	Verifies NO TIP Detector movement occurs.	____	____	____
END ALTERNATE PATH				
*9. Select DRIVE CONTROL CH A to insert detector.	Locates DRIVE CONTROL CH A.	____	____	____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
*10. Place MODE switch in MAN.	Turns MODE switch CW from OFF to MAN.	_____	_____	_____
*11. Place MAN. VALVE CONTROL in OPEN.	Turns MAN. VALVE CONTROL CW from CLOSED to OPEN.	_____	_____	_____
Note: NO unwanted light indications will be present. Therefore, the next step is not necessary. However, the examinee may still cycle the MODE switch to ensure the machine is operating properly.				
12. IF necessary, THEN cycle MODE switch to AUTO AND back to MAN.	May turn the MODE switch CW from MAN to AUTO, then CCW back to MAN.	_____	_____	_____
13. Place MANUAL switch in REV.	Turns MANUAL switch CCW from OFF to REV (reverse).	_____	_____	_____
14. Place MANUAL switch in OFF.	Turns MANUAL switch CW from REV to OFF.	_____	_____	_____
15. Verify READY light LIT.	Verifies READY light LIT.	_____	_____	_____
16. Place CORE LIMIT selector in TOP.	Turns CORE LIMIT selector CW from BOTTOM to TOP.	_____	_____	_____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
17. Verify CORE LIMIT display produces a digit symbol in each digit window.	Verifies CORE LIMIT display produces a digit symbol in each digit window.	____	____	____
18. Place CORE LIMIT selector in BOTTOM.	Turns CORE LIMIT selector CCW from TOP to BOTTOM.	____	____	____
19. Verify CORE LIMIT display produces a digit symbol in each digit window.	Verifies CORE LIMIT display produces a digit symbol in each digit window.	____	____	____
20. Verify DETECTOR POSITION display produces a digit symbol in each digit window.	Verifies DETECTOR POSITION display produces a digit symbol in each digit window.	____	____	____
21. Verify CORE LIMIT switch in BOTTOM position.	Verifies CORE LIMIT switch in BOTTOM position.	____	____	____
*22. At DRIVE CONTROL CH A, place MANUAL switch in FWD to start TIP detector insertion.	At DRIVE CONTROL CH A, turns MANUAL switch CW from OFF to FWD to start TIP detector insertion.	____	____	____
23. Verify DETECTOR POSITION rises from the IN-SHIELD position toward 0000 in slow speed.	Verifies DETECTOR POSITION rises from the IN-SHIELD position toward 0000 in slow speed.	____	____	____
*24. WHEN DETECTOR POSITION has counted 20 to 25 digits, THEN place MANUAL switch in OFF.	WHEN DETECTOR POSITION has counted 20 to 25 digits, THEN turns MANUAL switch CCW from FWD to OFF.	____	____	____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
25. Verify the IN-SHIELD light is off at the applicable Drive Unit.	Verifies the IN-SHIELD light is off at the applicable Drive Unit.	_____	_____	_____
26. Inform the Unit Supervisor that 2A TIP Detector is at the isolation test position.	Informs the Unit Supervisor that 2A TIP Detector is at the isolation test position.	_____	_____	_____
Cue: Acknowledge report.				
	END			

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____
Job Title: RO❑ SRO☑

JPM Title: Driving Tip Detectors to the Isolation Test Position
JPM Number: S-N-f **Revision Number**: 00
Task Number and Title: 215L032, Manually drive the TIPs Detectors to the Isolation Test Position.

K/A Number and Importance: 215001A4.03 3.0 /3.1

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑Simulator ❑Plant ❑Control Room

Testing Method: ❑ Simulate ☑ Perform **Alternate Path:** ☑ Yes ❑ No **SRO Only:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

Estimated Time to Complete: 5 minutes **Actual Time Used:** _____minutes

References: DOP 0700-06, Traversing Incore Probe (TIP) System Operation

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. Post Maintenance Testing is required on the 2A TIP machine.
2. A Group 2 Isolation occurred several minutes ago, was reset on the 902-5 panel and restoration is in progress.
3. Radiation Protection and Chemistry groups have been notified of operation of the TIP detector.

INITIATING CUE

The Unit Supervisor has directed you to drive the 2A TIP Detector in 20 to 25 digits from its current position by using step G.3 of DOP 0700-06, Traversing Incore Probe (TIP) System Operation.

Job Performance Measure (JPM)

Exelon Nuclear

Job Performance Measure

SBGT Post Maintenance Testing with receipt of an Auto Initiation Signal

JPM Number: S-N-g

Revision Number: 00

Date: 10/05

Developed By: _____ _____
Instructor **Date**

Approved By: _____ _____
Facility Representative **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

Previously used JPM S-7500-03. (ILT 03-1 NRC Exam)

SIMULATOR SETUP INSTRUCTIONS

15. Reset the simulator to any IC with Reactor Building Ventilation operating in a normal lineup.

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. Place the 2/3A SBGT train in STBY and the 2/3B SBGT train in PRI.

17. Place control switches for Unit 2 and 3 DW and Torus Purge fans in PTL on 923-5 panel.

18. Have the following malfunction ready to automatically insert when the 2/3A SBGT Control Switch is placed to start.

NOTE: The trigger assignment can be changed to any other available trigger to accommodate running this JPM concurrently with other JPMs.

Event Trigger 1 Activates when 2/3A SBGT switch is placed to START.

After 60 sec, inserts a spurious Group II isolation.

Enter the following Expert commands:

- trgset 1 "vgdstrta_drw"
- imf cigp2i (1 60)

DOCUMENT PREPARATION

Markup a copy of DOS 7500-02 as follows:

- o Initial ALL Prerequisites as completed.
- o Mark IST Testing steps N/A.
- o Mark steps for testing 2/3B SBGT Train N/A.
- o Enter a Cumulative Run Time on Checklist A.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. 2/3B SBGT train is operable and 2/3A SBGT train is in day 2 of a 7 day LCO per TS 3.6.4.3 Condition A.
2. Minor maintenance has been completed on the 2/3 A SBGT train and the train is back in service.
3. The prerequisites of DOS 7500-02 have been completed and IST testing is NOT required.
4. The Initial Cumulative Run Time has been recorded.
5. You are the Center Desk NSO.

INITIATING CUE

1. The Unit 2 Supervisor has directed you to perform DOS 7500-02 for the 2/3A SBGT train.
2. Notify the Unit 2 Supervisor when the task is complete up to step I.12.

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.

If a CRITICAL step has more than one part, then:

- (filled bullet) indicates a CRITICAL part of the step.
- (open bullet) indicates a NON-CRITICAL part of the 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.

Job Performance Measure (JPM)

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 the included copy of DOS 7500-02.				
1. Ensures the following: • 2/3 A and B AIR HEATERS are OFF. • 2/3 A and B Fans are OFF. • The following Annunciators are not in alarm: ❖ 923-5 A-6, STBY GAS TRT SYS A TROUBLE ❖ 923-5 B-6, STBY GAS TRT SYS B TROUBLE	Correctly verifies.	_____	_____	_____
* 2. Verify 2/3B SBGT SELECT switch in STBY position.	Turns 2/3 B SBGT SELECT switch CCW from PRI to STBY.	_____	_____	_____
Note 60 sec. after the 2/3A SBGT control switch is placed to START, the following malfunction is inserted automatically: **CIGP2I**. (Spurious Group II isolation)				
* 3. Place 2/3A SBGT SELECT switch to START position	Turns 2/3A SBGT SELECT switch from STBY to START.	_____	_____	_____
Note The Initial Run Time data has already been recorded. (This was in the initial cues)				
4. Records the Initial Run Time data for SBGT Train "A" on Checklist A.	Verifies the Initial Run Time data for SBGT Train "A" on Checklist A.	_____	_____	_____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
5. Verify the 2/3A SBGT train equipment aligned properly.	Begins to verify the 2/3A SBGT train equipment aligned properly.	____	____	____
6. Determine Group 2 Isolation has occurred.	Determines Group 2 Isolation has occurred. Proceeds to the Limitation and Action section for required actions.	____	____	____
BEGIN ALTERNATE PATH				
* 7. Place the SELECT SWITCH for the non-running train to PRI.	Turns the SELECT SWITCH for 2/3B SBGT train CW from STBY to PRI.	____	____	____
* 8. Place the control switch for the train under test to OFF.	Turns the SELECT SWITCH for 2/3A SBGT train CCW from START to OFF.	____	____	____
9. Verify train in PRI has sufficient flow AND the heater is operating.	Verifies flow of 3900 to 4700 cfm AND 2/3B SBGT heater is ON.	____	____	____
* 10. Place the Train previously under test to STBY.	Turns the SELECT SWITCH for 2/3A SBGT train CW from OFF to STBY.	____	____	____
11. Verifies a Reactor Building Isolation has occurred on Panel 923-4.	Starts to take action to verify the Reactor Building Isolation.	____	____	____
Cue: If the examinee starts to head toward the 902-5 panel STOP him and inform him another operator will verify the Group II Isolation.				

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
12. Verify the control switches for U2 AND U3 DW & Torus Purge Fans in PULL TO LOCK at Panel 923-5.	Verifies the control switches for U2 AND U3 DW & Torus Purge Fans in PULL TO LOCK at Panel 923-5: o 2-8605A, 2A DW & TORUS PURGE FAN o 2-8605B, 2B DW & TORUS PURGE FAN o 3-8605A, 3A DW & TORUS PURGE FAN o 3-8605B, 3B DW & TORUS PURGE FAN	———	———	———
13. Notify Unit Supervisor of the change in status of the surveillance.	Unit Supervisor notified.	———	———	———
Cue: Acknowledge report				
	END			

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____

Job Title: RO❑ SRO☑

JPM Title: SBGT Post Maintenance Testing with receipt of an Auto Initiation Signal
JPM Number: S-N-g **Revision Number**: 00
Task Number and Title: 261L002, Start the SBGT system.

K/A Number and Importance: 261000A2.10 3.1/3.2

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑Simulator ❑Plant ❑Control Room

Testing Method: ❑ Simulate **Alternate Path:** ☑ Yes ❑ No
☑ Perform **SRO Only:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

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

References: DOS 7500-02, R35, SBGT System Surveillance and IST Test

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. 2/3B SBGT train is operable and 2/3A SBGT train is in day 2 of a 7 day LCO per TS 3.6.4.3 Condition A.
2. The minor maintenance has been completed on the 2/3 A SBGT train and the train is back in service.
3. The prerequisites of DOS 7500-02 have been completed and IST testing is NOT required.
4. The Initial Cumulative Run Time has been recorded.
5. You are the Center Desk NSO.

INITIATING CUE

1. The Unit 2 Supervisor has directed you to perform DOS 7500-02 for the 2/3A SBGT train.
2. Notify the Unit 2 Supervisor when the task is complete up to step I.12.

Job Performance Measure (JPM)

Exelon Nuclear

Job Performance Measure

Start Standby Gas Treatment (SBGT)

JPM Number: S-N-g

Revision Number: 00

Date: 02/6/2006

Developed By: _____ _____
Instructor **Date**

Approved By: _____ _____
Facility Representative **Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

Revision 00 **Revised** to comply with rev 24 of DOP 7500-01

Job Performance Measure (JPM)

SIMULATOR SETUP INSTRUCTIONS

1. Standby gas treatment can be started from any IC.
2. Make sure that the "B" SBGT train switch is in Primary and the "A" train is in Standby.

Job Performance Measure (JPM)

INITIAL CONDITIONS

1. You are the Unit 2 Aux NSO.
2. HPCI 900# operability surveillance is about to be performed.
3. In order for this surveillance to be run, SBGT needs to be on.
4. No painting or use of propane is in progress in the Reactor Building or Turbine Building and no painting or use of propane has been done in the last 24 hours.
5. An NLO is standing by in the field.

INITIATING CUE

1. The Unit 2 Supervisor has directed you to start the "A" train of SBGT system in accordance with DOP 7500-01.
2. DOP 7500-01 has been completed up to but not including step G.1.a.(2).
3. Verify that SBGT flow is >3000 scfm.
4. Notify the Unit 2 Supervisor of the start time so that it may be recorded.

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 #
*1 Place "A" SBGT SELECT SWITCH to PRI position.	Repositions "A" SBGT SELECT SWITCH from STBY to PRI.	_____	_____	_____
*2 Place "B" SBGT SELECT SWITCH to STBY position.	Repositions "B" SBGT SELECT SWITCH from PRI to STBY.	_____	_____	_____
3 Verify the following: • 2/3 AIR HEATERS OFF. • 2/3 A(B) FANS OFF. • Annunciator 923-5 A-6 and B-6 NOT in alarm state.	Conditions VERIFIED.	_____	_____	_____
4 Verify both Units Drywell and Torus Purge Fans are off AND place in Pull-To LOCK: • 2-8605A, 2A DW & TORUS PURGE FAN. • 2-8605B, 2B DW&TORUS PURGE FAN. • 3-8605A, 3A DW & TORUS PURGE FAN. • 3-8605B, 3B DW&TORUS PURGE FAN.	Places 2A, 2B, 3A, and 3B DW & TORUS PURGE FANS in Pull-to-lock.	_____	_____	_____
4 Verify the 2/3A(B) SBGT SELECT switch for the OTHER train is in the A(B) STBY position.	VERIFIES "B" SBGT SELECT SWITCH in B STBY position.	_____	_____	_____
*5 Place 2/3 A(B) SBGT SELECT switch to START A(B) position	Places the 2/3 A SBGT SELECT switch to the START A position.	_____	_____	_____

PERFORMANCE CHECKLIST	STANDARDS	SAT	UNSAT	Comment #
6 Verify the following actions occur on the "A" SBGT: • INLET DAMPER 2/3 7505 A, OPENS. • OUTSIDE AIR DAM 2/3 7504 A, CLOSES. • 2/3 "A" AIR HEATER, ON. • 2/3 "A" FAN, ON. • SBGT TRN FAN DISCH MO 2/3 7507 A, OPENS. • Flow rate is sufficient for present ventilation line up on SBGT DISCH FLOW, FI 7540-13	Verifies the following actions occur on the "A" SBGT: • INLET DAMPER 2/3 7505 A, OPENS. • OUTSIDE AIR DAM 2/3 7504 A, CLOSES. • 2/3 "A" AIR HEATER, ON. • 2/3 "A" FAN, ON. • SBGT TRN FAN DISCH MO 2/3 7507 A, OPENS. • SBGT DISCH FLOW, FI 7540-13 indicates >3000 scfm.	_____	_____	_____
7 Verify the following on the other train: • INLET DAMPER 2/3 7505 A(B), closed. • OUTSIDE AIR DAM 2/3 7504 A(B), open. • SBGT TRN FAN DISCH MO 2/3 7507 A(B), closed.	Verify the following on the “B” train: • INLET DAMPER 2/3 7505 B, CLOSED. • OUTSIDE AIR DAM 2/3 7504 B, OPEN. • SBGT TRN FAN DISCH MO 2/3 7507 B, CLOSED.	_____	_____	_____
8 WHEN the SBGT System is operating satisfactorily, THEN inspect the train that is in service for: • Excessive vibration • High bearing temperature • Abnormal noises	Directs the NLO to inspect the 2/3 A SBGT for proper operation.	_____	_____	_____
9 Notifies the Unit 2 Supervisor of the start time.	Notifies the Unit 2 Supervisor of the start time.	_____	_____	_____
	END			

Job Performance Measure (JPM)

JPM Stop Time:_____

Job Performance Measure (JPM)

Operator's Name:_____
Job Title: SRO❑

JPM Title: Start Standby Gas Treatment
JPM Number: S-N-g **Revision Number**: 00
Task Number and Title: 261L002, Start Standby Gas Treatment

K/A Number and Importance: 261000 A4.03 3.0/3.0

Suggested Testing Environment: Simulator

Actual Testing Environment: ☑Simulator ❑Plant ❑Control Room

Testing Method: ❑ Simulate **Faulted:** ❑ Yes ☑ No
☑ Perform **Alternate Path:** ❑ Yes ☑ No

Time Critical: ❑Yes ☑No

Estimated Time to Complete: 9 minutes **Actual Time Used:** _____minutes

References: DOP 7500-01, Rev. 24

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. HPCI 900# operability surveillance is about to be performed.
3. In order for this surveillance to be run, SBGT needs to be on.
4. No painting or use of propane is in progress in the Reactor Building or Turbine Building and no painting or use of propane has been done in the last 24 hours.
5. An NLO is standing by in the field.

INITIATING CUE

1. The Unit 2 Supervisor has directed you to start the "A" train of SBGT system in accordance with DOP 7500-01.
2. DOP 7500-01 has been completed up to but not including step G.1.a.(2).
3. Verify that SBGT flow is >3000 scfm.
4. Notify the Unit 2 Supervisor of the start time so that it may be recorded.