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CLINTON POWER STATION

Job Performance Measure

Bypass a Rod Position at the Rod Action Control Cabinets (RACCs)

JPM Number: 33040220LSN01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New format and numbering convention, revalidated. This replaces JPM 011201J002. Revision number reset to 0.

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Bypass a Rod Position at the Rod Action Control Cabinets (RACCs)

JPM Number: 33040220LSN01 Revision Number:05

Task Number and Title: 330402.20, Complete Control Room actions to perform position bypass for the RCIS System.

K/A System	K/A Number	Importance (RO/SRO)	
201005	A4.01	3.7	3.7

Suggested Testing Environment: Control Room

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: 25 minutes Actual Time Used: _____ minutes

References: CPS No. 3304.02, Rod Control and Information System, Rev. 16a

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: _____

JPM Number: 33040220LSN01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

TASK STANDARDS:

- Operator actions performed per CPS No. 3304.02, Rod Control and Information System, the position for control rod 32-29 is bypassed at the channel 2 RACC.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Rod Bypass File Cover Keys (located in the WCS Key Locker)
- No additional Personal Protective Equipment (PPE) required.
- 2 color photos are included as separate files and must be manually attached.

PROCEDURAL/REFERENCES:

- CPS No. 3304.02, Rod Control and Information System, Rev. 16a

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

INITIAL CONDITIONS AND INITIATING CUE:

You are directed to bypass the position indication for control rod 32-29 at the Channel 2 Rod Action Control Cabinet (RACC) per CPS No. 3304.02, ROD CONTROL AND INFORMATION SYSTEM (RCIS).

Channel 1 has already been completed.

The ITS/ORM Impact Matrix has been reviewed by the CRS.

NOTE TO EVALUATOR

When the student has identified where the procedure is located, provide a copy of the procedure to the student.

Although not specifically evaluated in this JPM, the student will be required to obtain a key from the controlled key locker in order to accomplish this JPM.

JPM Number: 33040220LSN01

Clinton Power Station
Job Performance Measure (JPM)

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

NOTE

This section may be used to bypass the position of OPERABLE and INOP control rods to allow required movement of other control rods.

It may be necessary to bypass an INOP control rod in the RACS per this section prior to fully inserting the control rod to satisfy ITS actions.

ROD BYPASS FILE covers keys (in Controlled key locker):
Key # 14(15); Rod Bypass File - Div 1(2)

8.2.5 **Position Bypass**

(Perform 8.2.5.1, 8.2.5.2, and/or 8.2.5.3 as necessary)

1. Bypass a Rod at the RACC(s) as follows:

---

1. 8.2.5.1.1)
   Prior to bypassing any control rod position, review the ITS/ORM Impact Matrix (Limitation 6.2).

Standard:	No action required, review has already been done by the CRS, as stated in the Initiating Cue
Cue:	CRS has completed the ITS & ORM review.
Comments	Ensure examinee notifies the Control Room Operator prior to opening panel at 1H13-P651.

SAT ☐ UNSAT ☐ Comment Number _____

	***2.**	**8.2.5.1.2)** **[CH 2] On one of the bypass switch cards at the appropriate RACC [Channel 1(2): 1H13-P651(P652)],** **Position the toggle switches per Appendix A to insert the identity of the rod to be bypassed.**
Standard:		At 1H13-P652, in the Main Control Room back panel area, **SIMULATE** inserting the correct position of the toggle switches for rod 32-29.
Cue:		Switches are as placed.
Comments		Ensure the examinee indicates which toggle switch position corresponds to a one or to a zero, (0-toggle switch left, 1-toggle switch right). Record (L/R) examinee's responses below. If switches are moved in the wrong direction then attached Appendix A may be used to determine which rod is being bypassed. Actual: X_4____ X_3____ X_2____ X_1____ X_0____ Y_4____ Y_3____ Y_2____ Y_1____ Y_0____ Expected: X_4 L(0) X_3 R(1) X_2 L(0) X_1 R(1) X_0 L(0) Y_4 L(0) Y_3 R(1) Y_2 L(0) Y_1 L(0) Y_0 R(1) SAT ☐ UNSAT ☐ Comment Number _____

	3.	8.5.2.1.3) [CH 2] Have a second licensed operator verify correct rod identity selection.
Standard:		Examinee states that a second licensed operator has to verify the rod selection.
Cue:		If the operator questions using a second operator, report that a second operator has performed the verification.
Comments		SAT ☐ UNSAT ☐ Comment Number _____

***4.**	**8.2.5.1.4)** **[CH 2 Place the Activate (top switch) to the right.**
Standard:	Operator simulates moving the Activate switch to the right.
Cue:	When switch has been moved to the right, notify student that Red Light below top switch energizes.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

5.	8.2.5.1.5) If both channels are required to be bypassed, then repeat previous three steps (2-4) at the other RACC, then proceed on to step 6) below.
Standard:	No action required Channel 1 has already been completed per the Initiating Cue.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	6	8.2.5.1.6) Depress the POSITION BYPASSED push-button on the DISPLAY SELECTION section of the OCM to verify that the bypassed rod is indicated on the full core display.
Standard:		Operator simulates depressing the POSITION BYPASSED push-button on the DISPLAY SELECTION section of the OCM (MCR Horseshoe).
Cue:		*Provide Examinee pictures of the Display Selection (for pushbutton identification) and of the Full Core Display (rod and light location identification).* Pushbutton is depressed and GREEN light illuminates for rod 32-29.
Comments		If an incorrect rod has been selected at the RACCs, Appendix A may be used to determine which rod has been bypassed and the CUE would be the actual rod bypassed. At this point examinee is demonstrating how to verify a rod has been bypassed.
		SAT UNSAT Comment Number
	7	8.2.5.1.7) Make a CPS MCR AutoLog entry documenting independent verification of position bypass.
Standard:		Operator states that he would make an entry in the CPS MCR Autolog, OR physically commences to make an entry.
Cue:		Log entry has been made by the ‘B’ RO.
Comments		Mechanics of making a log entry is not being evaluated.
		SAT UNSAT Comment Number

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

Control Rod 32-29 position is bypassed at the channel 2 RACC.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

APPENDIX A: RACS BYPASSED ROD IDENTIFICATION LIST

Rod **X** Coordinate ➔ **X Switch** Position ➔	04	08	12	16	20	24	28	32	36	40	44	48	52
X_4	0	0	0	0	0	0	0	0	0	0	0	0	0
X_3	0	0	0	0	0	1	1	1	1	1	1	1	1
X_2	0	1	1	1	1	0	0	0	0	1	1	1	1
X_1	1	0	0	1	1	0	0	1	1	0	0	1	1
X_0	1	0	1	0	1	0	1	0	1	0	1	0	1

Rod **Y** Coordinate ➔ **Y Switch** Position ➔	05	09	13	17	21	25	29	33	37	41	45	49	53
Y_4	0	0	0	0	0	0	0	0	0	0	0	0	0
Y_3	0	0	0	0	0	1	1	1	1	1	1	1	1
Y_2	0	1	1	1	1	0	0	0	0	1	1	1	1
Y_1	1	0	0	1	1	0	0	1	1	0	0	1	1
Y_0	1	0	1	0	1	0	1	0	1	0	1	0	1

0 - toggle switch LEFT 1 - toggle switch RIGHT

Clinton Power Station
Job Performance Measure (JPM)

Initiating Cue

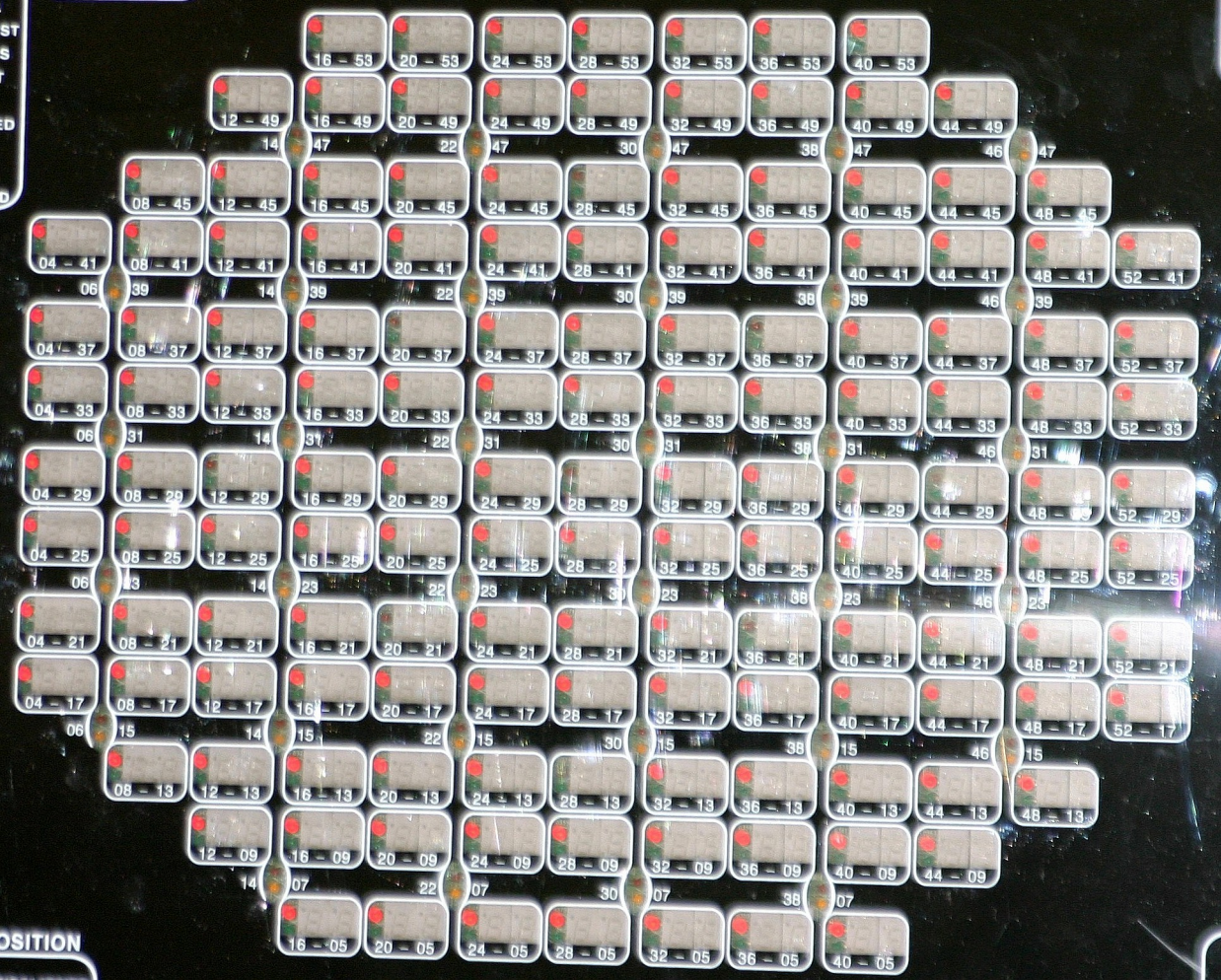
CAUTION

- No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

You are directed to bypass the position indication for control rod 32-29 at the Channel 2 Rod Action Control Cabinet (RACC) per CPS No. 3304.02, ROD CONTROL AND INFORMATION SYSTEM (RCIS).

Channel 1 has already been completed.

The ITS/ORM Impact Matrix has been reviewed by the CRS.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24 - 05
28 - 05
32 - 05
36 - 05
40 - 05


DISPLAY SELECTION
TEST DISPLAY
DATA FAULT
SUBST POSITION
DRIVE BYPASSED
SCRAM VALVES
ACCUM FAULT
POSITION BYPASSED
LPRM BYPASSED
ROD UNCOUPLED
ROD DRIFT
INSERT OK
WITHDRAW OK
SELECT ROD INSERT
SELECTED HALF
SELECTED GROUP
ALL RODS

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CLINTON POWER STATION

Job Performance Measure

Inject to the RPV Using SX Through LPCI

JPM Number: 44110315LSN01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New format and numbering convention, revalidated. This replaces JPM 014200J010. Revision number reset to 0.

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Inject to the RPV Using SX Through LPCI

JPM Number: 44110315LSN01 Revision Number:00

Task Number and Title: 441103.15, Complete Control Room actions to perform SX through RHR B system injection and containment flooding operations when in EOP/SAGs.

K/A System	K/A Number	Importance (RO/SRO)	
295031	EA1.08	3.8	3.9

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: 30 minutes Actual Time Used: _____ minutes

References: CPS No. 4411.03, Injection/Flooding Sources, Rev. 6b

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: _____

JPM Number: 44110315LSN01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

SIMULATOR SET-UP CONDITIONS

IC-85 on the ILT_EXAM_JPM_LOAD, or to an IC with the following conditions:

- Reactor depressurized and MODE SWITCH in SHUTDOWN.
- Start Shutdown Service Water Pump B.

TASK STANDARDS:

- SX is injecting into the RPV through LPCI.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- CPS No. 4411.03, Injection/Flooding Sources, Rev. 6b

PROCEDURAL/REFERENCES:

- CPS No. 4411.03, Injection/Flooding Sources, Rev. 6b

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

INITIAL CONDITIONS AND INITIATING CUE:

Inject to the RPV using Shutdown Service Water through LPCI Loop B.

Use CPS No. 4411.03, Injection/Flooding Sources, Rev. 6b, Appendix A Method 2.0.

Isolation of non-essential SX loads will be completed by an extra Reactor Operator.

NOTE TO EVALUATOR

When the student has identified where the procedure is located, provide a copy of the procedure to the student.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

CPS No. 4411.03, Appendix A, Method 2.0

***1.** **2.1**
Shut 1E12-F003B, RHR B Hx Outlet Valve.

Standard:	Operator takes handswitch for 1E12-F003B to CLOSE and observes the GREEN light ON and the RED light OFF. (Throttle Valve)
Cue:	None, self revealing
Comments	Operator may also monitor valve position on the meter.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

NOTE
1E12-F048B response to ECCS logic signals:

- ***LPCI:*** ***OPEN*** *for 10 minutes, then can reposition.*
- ***CNMT Spray:*** ***CLOSE****, reset needed to reposition.*
- ***LPCI & CNMT Spray:*** *Cycles* ***OPEN/CLOSE*** *until 10 min LPCI timer times out.*

***2.** **2.2**
Shut 1E12-F048B, RHR B Hx Bypass Valve.

Standard:	Operator takes handswitch for 1E12-F048B to CLOSE and observes the GREEN light ON and the RED light OFF. (Throttle Valve)
Cue:	None, self revealing
Comments	Operator may also monitor valve position on the meter. May stop shutting the valve to verify that it has been > 10 minutes and valve will stay shut.

SAT ☐ UNSAT ☐ Comment Number _____

---

3. 2.3
Verify SX running per CPS 3211.01, Shutdown Service Water (SX).
As necessary to support core cooling, Div 1 SX may be cross-connected with Div 2 SX by opening 1SX011A & B, Div 1(2) Cross Tie Valves.
As time permits, isolate non-essential SX loads.

Standard:	Operator verifies SX running per 3211.01
Cue:	Report as the CRS that SX does not need to be cross-connected.
Comments	As stated in the cue extra RO is isolating non-essential SX loads.

SAT ☐ UNSAT ☐ Comment Number _____

---

4. 2.4
   Shut:
   1. 1E12-F024B, RHR B Test Valve To Suppr Pool.
   2. 1E12-F014B, SSW Inlet RHR B Hx Valve.
   3. 1E12-F053B, RHR B To Feedwater S/D Cooling Rtrn Vlv.
   4. 1E12-F023, RHR B Supp To Rx Head Spray Valve.
   5. 1E12-F028B, RHR B To CNMT Outbd Isol Valve.

Standard:	Operator determines that each of the above valves is shut by verifying that the GREEN light is ON and the RED light is OFF.
Cue:	None, self revealing
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

---

5. 2.5
   Open 1E12-F027B, RHR B To CNMT Outbd Isol Valve.

Standard:	Operator determines that 1E12-F027B is OPEN by verifying that the RED light is ON and the GREEN light is OFF.
Cue:	None, self revealing
Comments:	

SAT ☐ UNSAT ☐ Comment Number _____

***6. 2.6**
Open 1E12-F096, Service Water To RHR Blocked Supp Vlv. (Key Operated Switch)

Standard: Operator places key in switch for 1E12-F096 and takes switch to OPEN and observes RED light is ON and GREEN light is OFF.

Cue:

Comments:

SAT ☐ UNSAT ☐ Comment Number _____

***7. 2.7**
Open 1E12-F094, Service Water To RHR B Supp Vlv.

Standard: Operator takes handswitch for 1E12-F094 to OPEN and observes RED light is ON and GREEN light is OFF.

Cue:

Comments:

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8. 2.8**
Open 1E12-F042B, LPCI Fm RHR B Shutoff Valve.

Standard:	Operator takes handswitch for 1E12-F042B to OPEN and observes RED light is ON and GREEN light is OFF.
Cue:	None, self revealing
Comments:	

SAT ☐ UNSAT ☐ Comment Number _____

---

9. 2.9
Monitor SX flow on flow indicator 1E12-R603B, RHR Pump B Flow.

Standard:	Operator verifies flow on 1E12-R603B.
Cue:	
Comments:	Flow may be too low to allow monitoring on 1E12-R603B. An accurate flow indication can be seen on DCS.

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Shutdown Service Water (SX) is being injected into the RPV.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Initiating Cue

Inject to the RPV using Shutdown Service Water through LPCI Loop B.

Use CPS No. 4411.03, Injection/Flooding Sources, Rev. 6b, Appendix A Method 2.0.

Isolation of non-essential SX loads will be completed by an extra Reactor Operator.

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CLINTON POWER STATION

Job Performance Measure

Transfer Main Turbine Control to Standby

JPM Number: 31050119LSN01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New JPM

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Transfer Main Turbine Control to Standby

JPM Number: 31050119LSN01 Revision Number:00

Task Number and Title: 310501.19, Perform Transfer to Standby Mode

K/A System	K/A Number	Importance (RO/SRO)	
241000	A4.19	3.5	3.4

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

Testing Method: ☐ Simulate ■ Perform **Faulted/Alternate Path:** ☐ Yes ■ No **SRO Only:** ☐ Yes ■ No

Time Critical: ☐ Yes ■ No

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

References: CPS No. 3105.01, Turbine (TG, EHC, TS), Rev. 33

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: _____

JPM Number: 31050119LSN01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

SIMULATOR SETUP CONDITIONS:

IC-87 on the ILT_EXAM_JPM_LOAD, or an IC with the following conditions:

- Main Turbine is in normal operation

TASK STANDARDS:

- Main Turbine has been placed in the Standby Mode of operation

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Copy of CPS No. 3105.01, Turbine (TG, EHC, TS), Rev. 33

PROCEDURAL/REFERENCES:

- CPS No. 3105.01, Turbine (TG, EHC, TS), Rev. 33

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

INITIAL CONDITIONS AND INITIATING CUE:

Troubleshooting is required to be done on the Main Turbine Speed Control circuitry.

You are directed to transfer Main Turbine Control to the Standby Mode.

NOTE TO EVALUATOR

When the student has identified where the procedure is located, provide a copy of the procedure to the student.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

8.2.2 **Transfer TO Standby Mode** (All actions performed on Panel P680, Section 5007)

1. 8.2.2.1.
   Verify the following indicator lights are 'ON': (Failure to have 'ON' can result in a Rx SCRAM.)
   - PRESS AMPL IN CONTROL
   - GRID ISOL OFF
   - LOAD LIMIT NOT LIMITING

Standard: Operator verifies each of the lights are 'ON'.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

2. 8.2.2.2.
Perform Backup Overspeed Trip Test per CPS 3812.01, Turbine On-Line Tests.
☞ If this test is <u>not</u> performed successfully, then EHC control shall not be shifted to the STANDBY mode.

Standard: No action required.

Cue: Backup Overspeed Trip test has just been completed by the extra RO.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

3. 8.2.2.3.
Perform Power/Load Unbalance Trip Test per CPS 3812.01, Turbine On-Line Tests.
☞ If this test is <u>not</u> performed successfully, then turbine load shall be limited to 900 MWe.

Standard: No action required.

Cue: Power/Load Unbalance Trip Test has just been completed by the extra RO.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

4. 8.2.2.4.
Position the STANDBY LOAD SET control fully counterclockwise (CCW).

Standard:	Operator rotates the STANDBY LOAD SET dial fully COUNTERCLOCKWISE.
Cue:	None, self revealing
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

5. 8.2.2.5.
Verify the EHC system is in pressure control:
1) LOAD LIMIT potentiometer should be set to the max clockwise 100% position (vernier dial ~ 10).
2) PRESS AMPL IN CONTROL light should be 'ON'.

Standard:	Operator verifies the following: • LOAD LIMIT potentiometer is set to the max clockwise 100% position. • PRESS AMPL IN CONTROL light is 'ON'.
Cue:	None, self revealing
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

6. 8.2.2.6.
Verify M.S.V. SIG MATCHED light is 'ON'

Standard: Operator verifies the M.S.V. SIG MATCHED light is 'ON'

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

7. 8.2.2.7.
Verify on the IV Signal meter that the primary and standby signals are matched.

Standard: Operator compares the primary and standby signals to ensure they are matched.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8. 8.2.2.8
   Verify the IV SIG MATCHED light is 'ON'.

Standard:	Operator verifies that the IV SIG MATCHED light is 'ON'.
Cue:	None, self revealing
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

9. 8.2.2.9 (Page 50)
   Verify the CV AMPL SIG MATCHED light is 'OFF'.
   ☞ The primary CV signal will be at some value, depending on TG load, and the standby CV signal should be at zero.

Standard:	Operator verifies the CV AMPL SIG MATCHED light is 'OFF'.
Cue:	None, self revealing
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***10. 8.2.2.10 (Page 51)**

Increase STANDBY LOAD SET until the primary CV signal and standby CV signal are matched.

Observe the CV AMPL SIG MATCHED light is 'ON'.

Standard:	• Operator rotates the STANDBY LOAD SET potentiometer in the CLOCKWISE direction until the primary CV signal and the standby CV signal are matched. • Observes the CV AMPL SIG MATCHED light is 'ON'.
Cue:	None, self revealing
Comments	The critical task is to increase the STANDBY LOAD SET until the signals are matched.

SAT ☐ UNSAT ☐ Comment Number _____

***11. 8.2.2.11 (Page 51).**

Press the STANDBY SIGNAL MATCH selector ON push-button.

Observe the following indicator lights:

- STANDBY SIGNAL MATCH status light OFF is 'OFF'.
- STANDBY SIGNAL status light MATCH ON is 'ON'.
- OPERATING MODE status light IN STANDBY is 'ON'.

☞ The Main EHC speed control & load control are now bypassed. The pressure control loop is still active.

Standard:

- Operator depresses the STANDBY SIGNAL MATCH selector ON push-button.
- Observes the following on the STANDBY SIGNAL MATCH section:
  1) OFF light is 'OFF'.
  2) ON light is 'ON'.
- Observes the following on the OPERATING MODE section:
  1) IN STANDBY light is 'ON'.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The Main Turbine Control has been transferred to the Standby Mode.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE

Troubleshooting is required to be done on the Main Turbine Speed Control circuitry.

You are directed to transfer Main Turbine Control to the Standby Mode.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

RCIC Restart and Shift of Suction to Suppression Pool

JPM Number: 33100108LSA01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New JPM

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: RCIC Restart and Shift of Suction To Suppression Pool

JPM Number: 33100108LSA01 Revision Number:00

Task Number and Title: 331001.08, Complete Control Room actions to perform RCIC Restart with Initiation Signal Present

K/A System	K/A Number	Importance (RO/SRO)	
217000	A2.16	3.5	3.4

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

Testing Method: ☐ Simulate ■ Perform **Faulted/Alternate Path:** ■ Yes ☐ No **SRO Only:** ☐ Yes ■ No

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 30 minutes Actual Time Used: _____ minutes

References: CPS No. 3310.01, Reactor Core Isolation Cooling (RI), Rev. 25c

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: _____

JPM Number: 33100108LSA01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

SIMULATOR SETUP CONDITIONS:

IC-90 on the ILT_EXAM_JPM_LOAD, or to an IC with the following conditions:

- RCIC has been Shutdown after receiving an Initiation Signal.
- RPV Level is lowering requiring the restart of RCIC.

TASK STANDARDS:

- RCIC has been restarted and RCIC suction has been shifted to the Suppression Pool.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Copy of CPS No. 3310.01, Reactor Core Isolation Cooling (RI), Rev 25c

PROCEDURAL/REFERENCES:

- CPS No. 3310.01, Reactor Core Isolation Cooling (RI), Rev.25c

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

JPM Number: 33100108LSA01

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE:

RCIC is shutdown but an Initiation Signal is still present.

Level in the RCIC Storage Tank is 3 ft. 11 in.

You are directed to restart RCIC and then shift RCIC suction to the Suppression Pool.

Notify the SRO when RCIC is restarted with RCIC taking a suction on the Suppression Pool.

NOTE TO EVALUATOR

When the student has identified where the procedure is located, provide a copy of the procedure to the student.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

CAUTION

The ramp generator is not available to control turbine acceleration.
Manual turbine control is necessary to prevent overspeed trip or high steam flow isolation.

RCIC turbine speed is the controlled parameter when RCIC pump flow controller is in manual.

Minimize the time RCIC speed is <1500 rpm. Damage can occur after 20 seconds.

8.1.8 **RCIC Restart with Initiation Signal Present**
(All actions performed at Panel P601, Section 5063)

***1. 8.1.8.1.**
Reset 1E51-C002, RCIC Turbine Vlv Opr (Stem) by taking its control switch to CLOSE, and verify the valve shuts.

Standard:
- Operator takes 1E51-C002 control switch to CLOSE
- Verifies the valve shuts by observing the GREEN light is ON and the RED light is OFF for the RCIC Turbine Trip Vlv Opr.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

2. 8.1.8.2.
Place RCIC Pump Flow Cont, 1E51-R600 in manual/minimum demand (0%).

Standard: Places the RCIC Pump Flow Controller switch to M and depresses the CLOSE pushbutton on the controller until the % OUTPUT meter reads 0%

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***3. 8.1.8.3.**
Open 1E51-C002, RCIC Turbine Trip Vlv Opr (Stem).

Standard: Opens 1E51-C002 by taking the control switch to OPEN and observing the following:

- GREEN light OFF and RED light ON for RCIC Turbine Trip Vlv Opr.
- GREEN light OFF and RED light ON for Turbine Trip Valve Stem.
- RCIC Turbine speed increases.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***4. 8.1.8.4.**

When turbine governor valve is limiting turbine speed, adjust RCIC Pump Flow Cont, 1E51-R600 to maintain:

1) **RCIC Turbine speed >1500 rpm, <u>and</u>**
   (within 20 sec preferred)
2) **The desired RPV level.**

Standard:

- Operator adjusts RCIC Pump Flow Cont, 1E51-R600, to maintain RCIC Turbine speed >1500 RPM.
- Moves to Section 8.1.9.2, Shifting RCIC Suction to Suppression Pool

Cue: Operator may inform SRO that RCIC is started and moving on to Shifting Suction to Suppression Pool. Respond to report as the CRS.

Comments: Performing the task within 20 seconds is not part of the critical step.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.9.2 **Shifting RCIC Suction to Suppression Pool**

---

5. 8.1.9.2
☞ Refer to PRECAUTION 4.13 in event 1E51-F010/F031 fail.

Standard: Operator reviews Precaution 4.13.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

6. 8.1.9.2.1.
Verify shut:
1) 1E51-F022, RCIC Pmp First Test Valve To Stor Tank.
2) 1E51-F059, RCIC Pmp Second Test Valve To Stor Tank.

Standard: Operator determines that 1E51-F022 & 1E51-F059 are closed by verifying the following:
1) For 1E51-F022, GREEN light ON and RED light OFF.
2) For 1E51-F059, GREEN light ON and RED light OFF.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***7. 8.1.9.2.2.**
Open 1E51-F031, RCIC Suppr Pool Suction Valve.

Standard:	Operator takes handswitch for 1E51-F031 to OPEN, and verifies the valve opens by checking the GREEN light is OFF and the RED light is ON for the valve.
Cue:	None, self revealing
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Begin Alternate Path

***8. 8.1.9.2.3.**
Verify 1E51-F010, RCIC Storage Tank Suction Valve Shuts.

Standard:	• Operator determines that 1E51-F010 has not shut by verifying that the GREEN light is OFF and the RED light is ON for the valve. • Operator takes the handswitch for 1E51-F010 to CLOSE and determines the valve shuts by verifying the GREEN light is ON and the RED light is OFF. • Notifies SRO that 1E51-F010, RCIC Storage Tank Suction Valve, failed to close automatically and that it was shut manually. • Notifies SRO that RCIC is running with Suction shifted to the Suppression Pool and it is ready to feed the RPV.
Cue:	None required.
Comments	Acknowledge reports as the SRO, and report feeding the RPV is not desired at this time.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

RCIC has been restarted and Suction has been shifted to the Suppression Pool with the RCIC Storage Tank Suction Valve closed.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE

RCIC is shutdown but an Initiation Signal is still present.

Level in the RCIC Storage Tank is 3 ft. 11 in.

You are directed to restart RCIC and then shift RCIC suction to the Suppression Pool.

Notify the SRO when RCIC is restarted with RCIC taking a suction on the Suppression Pool.

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CLINTON POWER STATION

Job Performance Measure

Verify Group 8 Automatic Isolation

JPM Number: 40010201LSF01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New JPM

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Verify Group 8 Automatic Isolation

JPM Number: 40010201LSF01 Revision Number:00

Task Number and Title: 400101.01, Complete Control Room Actions to Respond to an Automatic Isolation.

K/A System	K/A Number	Importance (RO/SRO)	
223002	A4.06	3.6	3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

Testing Method: ☐ Simulate ■ Perform **Faulted/Alternate Path:** ■ Yes ☐ No **SRO Only:** ☐ Yes ■ No

Time Critical: ☐ Yes ■ No

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

References: CPS No. 4001.02, Automatic Isolation, Rev. 16a
CPS No. 4001.02C001, Automatic Isolation Checklist, Rev. 14a

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:_____

JPM Number: 40010201LSF01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to perform or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

SIMULATOR SETUP CONDITIONS

IC-90 and LP-13 on the ILT_EXAM_JPM_LOAD, or an IC with the following conditions:

- Any IC at power.
- Insert an override on 1RE021 to fail to close automatically.
- Insert an override on 1RE022 to fail it to close automatically and manually.
- Insert a malfunction that will cause a Low Level 2 thereby causing a Group 8 Automatic Isolation.

TASK STANDARDS:

- 1RE021, Eq Drain Sump Disch CNMT Inbd Vlv is closed.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- CPS 4001.02C001 with the following sections complete:
  1. 1H13-P601 Section 5062
  2. 1H13-P800 Section 5040
  3. 1H13-P800 Section 5041

PROCEDURAL/REFERENCES:

- CPS No. 4001.02, Automatic Isolation, Rev. 16a
- CPS No. 4001.02C001, Automatic Isolation Checklist, Rev. 14a

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE:

A valid Low Level 2 isolation signal has occurred.

Actions to secure both RR Pumps have been taken.

A Group 8 isolation verification has been started

You are directed to complete the verification checklist FOR GROUP 8 ONLY in accordance with CPS 4001.02 Automatic Isolation.

NOTE TO EVALUATOR

When the Initiating Cue has been read by the student and acknowledged, provide a MARKED UP copy of the following procedure to the student.

a. CPS 4001.02
b. CPS 4001.02C001 with the following sections complete:
    - 1H13-P601 Section 5062
    - 1H13-P800 Section 5040
    - 1H13-P800 Section 5041

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

CPS No. 4001.02C001, Automatic Isolation Checklist

1. Completes CPS 4001.02 C001, Automatic Isolation Checklist for Group #8, BOP, PASS, & Containment Monitoring.

Standard: Operator verifies shut the following valves by observing the GREEN close indication is ON and the RED open indication is OFF.

- ❑ 1WX019, RWCU BKWH Inbd Isol Vlv
- ❑ 1WX020, RWCU BKWH Outbd Isol Vlv
- ❑ 0MC009, MC CNMT Outbd Isol Vlv
- ❑ 0MC010, MC CNMT Inbd Isol Vlv
- ❑ 1CY016, CY CNMT Outbd Isol Vlv
- ❑ 1CY017, CY CNMT Inbd Isol Vlv
- ❑ 1RF022, Eq Drain Sump Disch CNMT Outbd Vlv
- ❑ 1RF021, Eq Drain Sump Disch CNMT Inbd Vlv

Cue: None, Self Revealing

Comments: Steps 2 and 3 may be performed, before completing Step 1, when the operator attempts to verify closed 1RE022 and 1RE021 on 1H13-P601, Section 5068.

SAT ☐ UNSAT ☐ Comment Number _____

Begin Alternate Path

2. Operator identifies 1RE022, Eq Drain Sump Disch CNMT Outbd Vlv, has failed to isolate.

Standard:
1. Operator identifies that 1RE022 has failed to isolate and takes the control switch to close.
2. Operator identifies that the RED light is still ON and the GREEN light is OFF, indicating that the valve did not closed.
3. Reports failure of valve to close to the SRO.

Cue: Acknowledges report of valve 1RE022 failing to close

Comments: If the operator Arms & Depresses the CRVICS MANUAL INITIATION push-button(s) the valve still does not close.

SAT ☐ UNSAT ☐ Comment Number _____

***3. Operator identifies 1RE021, Eq Drain Sump Disch CNMT Inbd Vlv, has failed to isolate.**

Standard:
1. Operator identifies that 1RE021 has failed to isolate and takes the control switch to close. Verifies that GREEN light is ON and RED light is OFF.
2. Reports to the SRO that valve is closed and/or line is isolated.

Cue: Acknowledges report that valve 1RE021 failed to close and that it was manually closed.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

1RE021, Eq Drain Sump Disch CNMT Inbd Vlv is shut, and 1RE022, Eq Drain Sump Disch CNMT Outbd Vlv is open.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Initiating Cue

A valid Low Level 2 isolation signal has occurred.

Actions to secure both RR Pumps have been taken.

A Group 8 isolation verification has been started

You are directed to complete the verification checklist FOR GROUP 8 ONLY in accordance with CPS 4001.02 Automatic Isolation.

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CLINTON POWER STATION

Job Performance Measure

Parallel DG 1B With Offsite Power

JPM Number: 35060105LSA01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New format and numbering convention, revalidated. This replaces JPM 3506.0105. Revision number reset to 0.

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Parallel DG 1B With Offsite Power

JPM Number: 35060105LSA01 Revision Number:00

Task Number and Title: 3506.0105, Complete Control Room Actions to Perform Diesel Generator – Offsite Power Parallel Operation

K/A System	K/A Number	Importance (RO/SRO)	
264000	A2.01	3.5	3.6

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

Testing Method: ☐ Simulate ■ Perform **Faulted/Alternate Path:** ■ Yes ☐ No **SRO Only:** ☐ Yes ■ No

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 30 minutes Actual Time Used: _____ minutes

References: CPS No. 3506.01C002, Diesel Generator 1B Pre-Start Checklist, Rev. 9d

CPS No. 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, Rev. 47a

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: _____

JPM Number: 35060105LSA01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

SIMULATOR SETUP CONDITIONS

- IC-87 and LP-12 on the ILT_EXAM_JPM_LOAD, or an IC with the DG in standby, and:
  1. Start Diesel Generator 1B
  2. Load Lesson Plan to fail the voltage regulator switch to raise, but work in the lower direction, when the DG load reaches 3000 KW.
  3. Synch Switch is off with the key removed
  4. Turn on recorder power to allow the SVC Voltmeter to indicate.

TASK STANDARDS:

- Diesel Generator 1B output breaker has been reopened.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability marked up through Step 8.2.12.
- CPS 3506.01C002, Diesel Generator 1B Pre-Start Checklist filled out.

PROCEDURAL/REFERENCES:

- CPS No. 3506.01C002, Diesel Generator 1B Pre-Start Checklist, Rev. 9d
- CPS No. 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, Rev. 47a

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

JPM Number: 35060105LSA01

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE:

You are the B Operator
The plant is in a normal electrical power lineup.
DG 1B was started per CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, and is complete through step 8.2.12.
An Area Operator is standing by if needed.

You are directed to parallel Diesel Generator 1B with Offsite Power and load to ~ 3700 KW, for a 1 hour run, per CPS 9080.02, beginning at step 8.2.13.

NOTE TO EVALUATOR

When the Initiating Cue has been read by the student and acknowledged, provide a MARKED UP copy of the following procedures to the student.

- CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability marked up through Step 8.2.12.
- CPS 3506.01C002, Diesel Generator 1B Pre-Start Checklist filled out.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

8.2 **Diesel Generator 1B Operability**

CAUTIONS

1. *Only one Diesel Generator is to be paralleled with off-site power at any one time, and then only for testing or to return a bus to off-site power following recovery from the loss of both the Reserve and Main Supplies.*
2. *The time a Diesel Generator is paralleled with off-site power should be minimized to ensure the Diesel Generator is available for emergencies.*
3. *Due to the very small speed differential between the DG and the Off-site power source , a small reduction in DG speed (for whatever reason) may cause the DG to trip on reverse power – setpoint ≈ 1% reverse power with a 15 second time delay – unless the DG is promptly loaded following DG output breaker closure.*
4. *Placing DG 1B Output Bkr Sync switch to OFF, while the DG is in parallel, will trip the DG output breaker.*
5. *Due to the tight tolerances on the Synchro-Verifier relays, the amber trip light for the DG Output Breaker may energize if the control switch is positioned to CLOSE before the Synchro-Verifier relay permissive is satisfied. The contol switch should be held in the CLOSE position until the breaker closes or until the synchroscope indicates > 5 minutes after noon.*

Clinton Power Station
Job Performance Measure (JPM)

8.2.13 Load the DG per the following:

***1. 8.2.13.1**
Place DG 1B Output Bkr Sync switch to the ON position.

Standard: Inserts a key and turns the Output Bkr Sync switch to the ON position.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

2. 8.2.13.2

Adjust DG 1B voltage so that INCOMING voltage is matched with RUNNING voltage.

Standard: Examinee adjusts DG 1B voltage regulator so that INCOMING voltage is matched with RUNNING voltage.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

	3. 8.2.13.3 Adjust DG 1B speed such that DG frequency is slightly greater than bus frequency as indicated by the following: 1) CLOCKWISE rotation of the synchroscope at a speed of approximately one revolution every 60-120 sec. (i.e., ½ - 1 RPM) or slower. 2) Both synchroscope lights are extinguished at the 12 o'clock position. 3) Both synchroscope lights are brightly lit at the 6 o'clock position.
Standard:	Examinee adjusts DG 1B governor control switch so DG frequency is slightly greater than bus frequency by observing: • Slow rotation in the clockwise direction • Both synchroscope lights are extinguished at the 12 o'clock • Both synchroscope lights are brightly lit at the 6 o'clock
Cue:	None, self revealing
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

4. 8.2.13.4

IF During the time that the DG is paralleled with the grid any of the following occur:

1) Rapid change in DG output voltage,
   AND/OR
2) Rapid change in DG frequency,
   AND/OR
3) Rapid change in DG KW,
   AND/OR
4) Rapid change in DG KVAR,

THEN:

1) Trigger TT
2) Forward the transient data to Plant Engineering for analysis

Standard:	No action required at this time.
Cue:	Inform operator when MANUAL EVENT MARKER pushbutton is depressed, on P680 section 5009, that TT is triggered and data will be forwarded to Plant Engineering
Comments	The event that triggers this is in Step 9.

SAT ☐ UNSAT ☐ Comment Number _____

***5. 8.2.13.5.1)**

<u>WHEN</u> the synchroscope's pointer <u>nears</u> the vertical (12 o'clock) position <u>and</u> the synchronizing lamps go dark, <u>THEN</u>

1) **Close DG 1B Output Bkr, 1AP09EH.**

Standard: When the synchroscope pointer nears 12 o'clock, operator takes handswitch for DG 1B output breaker to CLOSE and observes RED light ON

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***6. 8.2.13.5.2)**

2) Promptly load DG 1B to at least 100-200 KW.

Standard: Operator immediately loads DG to > 100 KW by taking governor control switch to RAISE.

Cue: None, self revealing

Comments

SAT UNSAT Comment Number

	7. 8.2.13.5.3) 3) Verify VARs between –500 and +500 KVAR; adjust as necessary.
Standard:	Operator adjusts VARs as necessary with the voltage regulator.
Cue:	None, self revealing
Comments	

SAT UNSAT Comment Number

Clinton Power Station
Job Performance Measure (JPM)

CAUTIONS

1. *To ensure that DGs are not overloaded and to maintain DG operability, DG load **should not** be allowed to exceed **3875 KW,** except for short periods of time (Refer to 6.2.11).*
2. *DG Reactive (KVAR) loading shall be maintained within the limits of Appendix A, DG 1A/1B REACTIVE LOAD CAPABILITY CURVE.*

NOTES

1. *Momentary transients outside the specified load ranges, due to changing bus conditions, **do not** invalidate the 60 minute load test of SR 3.8.1.3.*
2. *The following two sub-steps may be done concurrently and may require adjustments periodically to maintain required test parameters.*

***8. 8.2.13.6**

Gradually load DG 1B, at a rate of ≈1000 KW per minute, to 3600 to 3800 KW as indicated on computer point DG-BA505.

Standard: Examinee begins loading the DG by taking governor control switch to RAISE.

Cue: See step 9 for cue.

Comments: When the DG reaches 3000 KW the voltage regulator will fail in the RAISE position.

SAT UNSAT Comment Number

	Begins Alternate Path	

9. Notify SRO of voltage regulator problem.

Standard: Operator notifies SRO of voltage regulator problem.

Cue: If operator looks for direction from the SRO ask him for suggested action.

If Annunciator 5007-5M, 4KV Bus High Voltage, activates, then announce it as the A Operator.

Comments: Examinee may go directly to 8.2.14.4 (Step 12) and Open DG 1B Output Breaker or Emergency Stop the DG. If so, N/A steps 10 and 11, and continue at step 12.

SAT UNSAT Comment Number

---

10. 8.2.14.2
Lower DG 1B load to 100 – 200 KW.

Standard: Operator takes handswitch for DG 1B governor control switch to LOWER.

Cue: None, self revealing

Comments

SAT UNSAT Comment Number

	11.	8.2.14.3 Adjust DG 1B VARs to ≈0 KVAR
Standard:		Operator takes the handswitch for DG 1B voltage regulator to LOWER
Cue:		None, self revealing
Comments		DG Amps will register high due to voltage regulator malfunction.
		SAT UNSAT Comment Number

	***12.**	**8.2.14.4** **Open DG 1B Output Bkr, 1AP09EH**
Standard:		Operator takes the handswitch for DG 1B output breaker to TRIP and observes GREEN light ON. Or Takes the DG control switch to stop. Or Pushes the DG Emergency Stop Pushbutton
Cue:		None, self revealing
Comments		This may be accomplished by opening the breaker or tripping the DG and verifying the Output Bkr open.
		SAT UNSAT Comment Number

TERMINATING CUES:

DG 1B Output Breaker is opened.

Once the Output Breaker is reopened, then terminate the JPM.

STOP TIME: _____

JPM Number: 35060105LSA01

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE:

You are the B Operator
The plant is in a normal electrical power lineup.
DG 1B was started per CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, and is complete through step 8.2.12.
An Area Operator is standing by if needed.

You are directed to parallel Diesel Generator 1B with Offsite Power and load to ~ 3700 KW, for a 1 hour run, per CPS 9080.02, beginning at step 8.2.13.

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CLINTON POWER STATION

Job Performance Measure

Shutdown SGTS Train 'A' After An Automatic Initiation

JPM Number: 33190103LSA01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New format and numbering convention, revalidated. This replaces JPM 011299J001. Revision number reset to 0.

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Shutdown SGTS Train 'A' After an Automatic Initiation

JPM Number: 33190103LSA01 Revision Number:00

Task Number and Title: 331901.03. Complete Control Room actions to Shutdown VG After Automatic Initiation

K/A System	K/A Number	Importance (RO/SRO)	
261000	A2.13	3.4	3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

Testing Method: ☐ Simulate ■ Perform **Faulted/Alternate Path:** ■ Yes ☐ No **SRO Only:** ☐ Yes ■ No

Time Critical: ☐ Yes ■ No

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

References: CPS No. 3319.01, Standby Gas Treatment (VG), Rev. 15a

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: _____

JPM Number: 33190103LSA01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

SIMULATOR SETUP CONDITIONS:

- IC-85 and LP-14 on the ILT_EXAM_JPM_LOAD, or a suitable IC with the following plant conditions:
  1) A high Drywell pressure signal has been inserted and can now be reset.
  2) CCP Exhaust Duct high radiation has initiated and can now be reset.

TASK STANDARDS:

- SBGT Train 'A' has been shutdown and the Standby Cooling Fan has been manually started.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- A copy of CPS No. 3319.01, Standby Gas Treatment (VG)

PROCEDURAL/REFERENCES:

- CPS No. 3319.01, Standby Gas Treatment (VG), Rev. 15a

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE:

SGTS Train ‘A’ and ‘B’ both automatically started due to valid, high DW pressure and CCP Exh Duct High Radiation initiation signals.

SGTS ‘B’ was manually shutdown.

SGTS ‘A’ is currently running.

All initiating conditions have cleared, but have not been reset.

Chemistry has performed required samples as required per CPS 9940.01, Weekly Chemistry Surveillance Log.

You are directed to Shutdown SGTS Train ‘A’ IAW CPS 3319.01, Standby Gas Treatment (VG) **through step 8.3.2.3.**

NOTE TO EVALUATOR

When the student has identified where the procedure is located, provide a copy of the procedure to the student.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

8.3.2 **Shutdown After An Automatic Initiation**

1. 8.3.2.1.
   Verify Chemistry has performed samples as required per CPS 9940.01, Weekly Chemistry Surveillance Log.

Standard: No action required, step has already been completed per the Initial Conditions.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

NOTE

Once the initiation signal has cleared and been reset, as indicated by the white Initiate-Reset Permissive light, the operating train may be stopped and normal ventilation restored to the Fuel Building and Containment Building.

8.3.2.2. Initiation Signal Reset

***2. 8.3.2.2.1)**

IF Initiation signal was due to low RPV level or high drywell pressure,

THEN Reset the signal logic with the INBD (OUTBD) ISOLATION SEAL IN RESET push-button(s).

Standard:	Operator depresses the INBD & OUTBD ISOLATION SEAL IN RESET push-buttons on P601.
Cue:	None, self revealing
Comments	Reason for Initiation Signals was given in the Initiating Cue.

SAT ☐ UNSAT ☐ Comment Number _____

---

3. 8.3.2.2.2)

   IF Initiation signal was due to Fuel Bldg Main Exhaust Duct high radiation,

   THEN Reset the signal logic by positioning both

   a) The Div 1 Containment HVAC Isolation Valve Radiation Interlock switches to either FUEL BLDG BYPASS or TOTAL BYPASS position;

      Then return both switches to NORMAL.

   b) The Div 2 Containment HVAC Isolation Valve Radiation Interlock switches to either FUEL BLDG BYPASS or TOTAL BYPASS position;

      Then return to NORMAL

Standard:	No action required, the Initiation Signal was not due to Fuel Bldg Main Exhaust Duct High Radiation.
Cue:	None, self revealing
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***4. 8.3.2.2.3)**

IF Initiation signal was due to either:

- **CNMT Bldg Refueling Pool Exh Duct,**
- **CNMT Bldg Main Exhaust Duct, or**
- **CCP Exhaust Duct high radiation,**

THEN Reset the signal logic by positioning <u>both</u>

a) **The Div 1 Containment HVAC Isolation Valve Radiation Interlock switch to TOTAL BYPASS;**

b) The Div 2 Containment HVAC Isolation Valve Radiation Interlock switch to TOTAL BYPASS position;

<u>Then</u> return both switch to NORMAL

Standard:	• Operator resets the logic by placing the Div 1 & Div 2 Containment HVAC Isolation Valve Radiation Interlock switches to TOTAL BYPASS • Returns the switches to NORMAL
Cue:	None, self revealing
Comments	The critical part of this step is to take the switches to TOTAL BYPASS.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

CAUTION

Minimize the time between securing the SGTS and the startup of the VF system to prevent the loss of Secondary Containment Integrity when required by ITS LCO 3.6.4.1.

***5. 8.3.2.3. (First Section)**

Remove the operating SGTS train from service by:
Stop respective SGTS Trn A(B) Exh Fan, 0VG02CA(B).
Verify the following automatic actions:

Component	Description	Position
1VG17YA(B)	Fuel Bldg Exh Inbd (Outbd) Isol Dmpr	Opens
1VG16YA(B)	Fuel Bldg Exh Inbd (Outbd) Isol Dmpr	Opens
1VG04YA	SGTS Trn A Pmp Rms Suct Dmpr (1VG04YB remains open)	Closes
1VG05YA(B)	SGTS Trn A(B) Fuel Bldg Suct Dmpr	Closes
1VG06YA(B)	SGTS Trn A(B) ECCS Rms Suct Dmpr	Remains Open
1VG02YA(B)	SGTS Trn A(B) Fuel Bldg Isol Dmpr	Closes
0VG01YA(B)	SGTS Trn A(B) Inlet Dmpr	Closes
0VG04AA(B)	SGTS Trn A(B) Htr	Deenergizes
0VG02YA(B)	SGTS Trn A(B) Exh Fan 2CA(B) Dmpr	Closes

Standard:
- Operator takes the control switch for 0VG02CA to STOP and determines the fan has stopped by verifying the RED light is OFF and the GREEN light is ON for the fan.
- Verifies that the automatic actions occur for each item of the list

Cue: None, self revealing

Comments: The critical part of this step is to secure the fan.

SAT ☐ UNSAT ☐ Comment Number _____

Begin Alternate Path

NOTE

If 0VG03CA(B), SGTS TRN A(B) Standby Clg Fan fails to start in AUTO, refer to 8.2.3 for manual starting and shutting down the fan.
Fan should be run until decay heat in the charcoal adsorber has lowered to the point where the fan is no longer needed when running cooling fan in manual.

***6. 8.3.2.3. (Second Section)**
Verify the following automatic actions:

0VG03CA(B)	SGTS Trn A(B) Standby Clg Fan	Starts
0VG03YA(B)	SGTS Train A(B) Cont Bldg Isol Dmpr	Opens
0VG04YA(B)	SGTS Trn A(B) Clg Fan 3CA(B) Exh Dmpr	Opens
0VG05YA(B)	SGTS Trn A(B) Exhaust Fan (Stack) Dmpr	Remains Open

Standard:
- Operator determines that the automatic actions listed above have not occurred.
- Operator refers to section 8.2.3 to manual start 0VG03CA, SGTS Trn A Standby Clg Fan.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2.3 **Manual Operation of A Cooling Fan**

***7.** **8.2.3.1.**
Start SGTS Trn A(B) Standby Clg Fan, 0VG03CA(B).

Standard: Operator takes the control switch for 0VG03CA to START and determines the fan has started by verifying the RED light is ON and the GREEN light is OFF for the fan.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

8. 8.2.3.2.
Verify that the following dampers open:
1) 0VG03YA(B), SGTS Trn A(B) Cont Bldg Isol Dmpr.
2) 0VG04YA(B), SGTS Trn A(B) Clg Fan 3CA(B) Exh Dmpr.
3) 0VG05YA(B), SGTS Trn A(B) Exh Fan (Stack) Dmpr.

Standard: Operator determines that the dampers have opened by verifying that the RED light is ON and the GREEN light is OFF for each of the dampers.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

0VG02CA, SGTS Trn A Exh Fan, has been secured, and 0VG03CA, SGTS Trn A Standby Clg Fan has been manually started.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE

SGTS Train ‘A’ and ‘B’ both automatically started due to valid, high DW pressure and CCP Exh Duct High Radiation initiation signals.

SGTS ‘B’ was manually shutdown.

SGTS ‘A’ is currently running.

All initiating conditions have cleared, but have not been reset.

Chemistry has performed required samples as required per CPS 9940.01, Weekly Chemistry Surveillance Log.

You are directed to Shutdown SGTS Train ‘A’ IAW CPS 3319.01, Standby Gas Treatment (VG) **through step 8.3.2.3.**

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CLINTON POWER STATION

Job Performance Measure

Perform a SF Valve Stroke Timing Test

JPM Number: 90610301LSA01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New format and numbering convention, revalidated. This replaces JPM 011299J001. Revision number reset to 0.

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Perform a SF Valve Stroke Timing Test

JPM Number: 90610301LSA01 Revision Number:00

Task Number and Title: 906103.01, Perform Containment/Drywell Isolation Valve Three Month Operability

K/A System	K/A Number	Importance (RO/SRO)	
223002	A1.02	3.7	3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

Testing Method: ☐ Simulate ■ Perform **Faulted/Alternate Path:** ■ Yes ☐ No **SRO Only:** ☐ Yes ■ No

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 30 minutes Actual Time Used: _____ minutes

References: CPS No. 9061.03, Containment/Drywell Isolation Valve Three-Month Operability, Rev. 37
CPS No. 9061.03C012, Week 12 – CM, SF, SM, LD Isol Valve Operability Checklist, Rev. 40b.
CPS No. 9061.03D012, Week 12 – CM, SF, SM, LD Isol Valve Operability Data Sheet, Rev. 37a.

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: _____

JPM Number: 90610301LSA01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

SIMULATOR SETUP CONDITIONS:

IC-87 and LP-12 on the ILT_EXAM_JPM_LOAD, or an IC with the following conditions:

- Suppression Pool Cleanup shutdown and Isolation Valves closed.
- Initiate an Instructor action for the following:
  1) 1SF004 red light to stay ON for 75 seconds following the initiation of a closed signal.
  2) 1SF002 red light to stay ON for 132 seconds following the initiation of a closed signal

TASK STANDARDS:

- Stroke time test 1SF001, 1SF002, & 1SF004 and determine type of failure for 1SF004 and 1SF002.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- CPS No. 9061.03, Containment/Drywell Isolation Valve Three-Month Operability, Rev 37.
- CPS No. 9061.03C012, Week 12 – CM, SF, SM, LD Isol Valve Operability Checklist marked up through section 8.12.3.
- CPS No. 9061.03D012, Week 2 – CM, SF, SM, LD Isol Valve Operability Data Sheet Completed for all valves except 1SF001, 1SF004, & 1SF002.
- Stopwatch

PROCEDURAL/REFERENCES:

- CPS No. 9061.03, Containment/Drywell Isolation Valve Three-Month Operability, Rev 37.
- CPS No. 9061.03C012, Week 12 –CM, SF, SM, LD Isol Valve Operability Checklist, Rev. 40b.
- CPS No. 9061.03D012, Week 12 –CM, SF, SM, LD Isol Valve Operability Data Sheet, Rev. 37a.

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE:

CPS 9061.03C012, WEEK 12 – CM, SF, SM, LD ISOL VALVE OPERABILITY CHECKLIST is in progress with testing complete with the exception of the SF valves.

Suppression Pool Cleanup is secured and Suppression Pool Level is 19.1 ft.

SF will not be restarted when testing is complete.

You are directed to complete the testing for the SF valves IAW CPS 9061.03C012 steps 8.12.6 and 8.12.7.

NOTE TO EVALUATOR

When the Initiating Cue has been read by the student and acknowledged, provide a MARKED UP copy of the following to the student:

- CPS No. 9061.03, Containment/Drywell Isolation Valve Three-Month Operability
- CPS No. 9061.03C012, Week 12 – CM, SF, SM, LD Isol Valve Operability Checklist marked up through section 8.12.3.
- CPS No. 9061.03D012, Week 2 – CM, SF, SM, LD Isol Valve Operability Data Sheet Completed for all valves except 1SF001, 1SF004, & 1SF002.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

1. 8.12.6.1.
   Place SF SYS DIV 1 IN TEST switch to TEST.
   1) Verify 5041-7C, NOT AVAILABLE SF SYSTEM DIVISION 1 alarms or per plant conditions.
   2) Verify SF DIV 1 MOV'S IN TEST status light energized.

Standard:	Test switch is placed in TEST and annunciator is verified in alarm and status light is verified energized.
Cue:	If reported, acknowledge report as CRS.
Comments	Annunciator should be reported to CRS.

SAT ☐ UNSAT ☐ Comment Number _____

8.12.6.2.

***2.** **Timing 1SF001, SPCU Rtrn Line Outbd Isol Vlv**

1) Open 1SF001, SPCU Rtrn Line Outbd Isol Vlv.
2) **(Record) Time shut 1SF001.**

Standard:	• 1SF001 is Opened, and then timed shut. Shut time is recorded in CPS No. 9061.03D012, Week 12 – CM, SF, SM, LD Isol Valve Operability Data Sheet. Enters initials in proper block.
Cue:	None, Self Revealing
Comments	Critical step is to time valve 1SF001.

SAT ☐ UNSAT ☐ Comment Number _____

Begin Faulted Path

***3. 8.12.6.3.**

Timing 1SF004, SPCU Suct Line Outbd Isol Vlv

1) Open 1SF004, SPCU Suct Line Outbd Isol Vlv.
2) **(Record) Time shut 1SF004.**

Standard:	• 1SF004 is Opened, and then timed shut. Shut time is recorded in CPS No. 9061.03D012, Week 12 – CM, SF, SM, LD Isol Valve Operability Data Sheet. Enters initials in proper block. • Determines that Shut Time is outside the ACCEPTANCE CRITERIA but less than the LIMITING STROKE TIME. • Reports to SRO that Shut Time for 1SF001 is outside the ACCEPTANCE CRITERIA of 9061.03D012.
Cue:	Acknowledge report as the SRO, and ask for a recommended action for 1SF004.
Comments	Critical step is to time valve 1SF004 and recognize that it exceeds the ACCEPTANCE CRITERIA. SAT ☐ UNSAT ☐ Comment Number _____

4. CPS No. 9061.03, Containment/Drywell Isolation Valve Three-Month Operability

   9.1.1.3

   If the valve fails to exhibit the required change of disc position, or exceeds the limiting value of full-stroke time, then the valve shall be immediately declared inoperable.

   9.1.1.4.

   If valves with measured stroke times do not meet the acceptance range, but are less than the limiting value, then the valve shall be immediately retested or declared inoperable.

   9.1.1.5

   If the second set of data does not meet the acceptance range, but is less than the limiting value, then the test shall be analyzed by NSED within 96 hours of the test to verify that the new stroke time represents acceptable valve operation or the valve shall be declared inoperable.

Standard: Operator recommends retesting the valve or declaring it Inoperable. If valve is retested the same results will be seen, and the operator should notify the SRO of the test results and the need for NSED to perform a review.

Cue: Acknowledge the report as the SRO.

If operator recommends, cue examinee to reperform the test.

If operator recommends stopping test, report that surveillance needs to be completed to meet surveillance 1.25 time requirements.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

5. 8.12.6.4.
   Place SF SYS DIV 1 IN TEST switch to NORMAL.
   1) Verify 5041-7C, NOT AVAILABLE SF SYSTEM DIVISION 1 clears or per plant conditions.
   2) Verify SF DIV 1 MOV'S IN TEST status light deenergizes.

Standard: Test switch is placed in NORMAL and annunciator is verified cleared and status light is verified deenergized.

Cue: If reported, acknowledge report as CRS.
Cue examinee that IV is complete.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

6. 8.12.7.1.
   Place SF SYS DIV 2 IN TEST switch to TEST.
   1) Verify 5041-7F, NOT AVAILABLE SF SYSTEM DIVISION 2 alarms or per plant conditions.
   2) Verify SF DIV 2 MOV'S IN TEST status light energized.

Standard: Test switch is placed in TEST and annunciator is verified in alarm and status light is verified energized.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***7. 8.12.7.2.**

Timing 1SF002, SPCU Rtrn Line Inbd Isol Vlv

1) Open 1SF002, SPCU Rtrn Line Inbd Isol Vlv.
2) **(Record) Time shut 1SF002.**

Standard:
- 1SF002 is Opened, and then timed shut. Shut time is recorded in CPS No. 9061.03D012, Week 12 – CM, SF, SM, LD Isol Valve Operability Data Sheet. Enters initials in proper block.
- Determines that Shut Time is outside the LIMITING STROKE TIME.
- Reports to SRO that Shut Time for 1SF002 is outside the LIMITING STROKE TIME of 9061.03D012.

Cue: Acknowledge report as the SRO, and ask for a recommended action for 1SF002.

Comments: Critical step is to time valve 1SF002 and recognize that it exceeds the LIMITING STROKE TIME.
Valve should be declared INOPERABLE per CPS 9061.03, Section 9.1.1.3. (See Step 4)

SAT ☐ UNSAT ☐ Comment Number _____

---

8. 8.12.7.3.

Place SF SYS DIV 2 IN TEST switch to NORMAL.

1) Verify 5041-7F, NOT AVAILABLE SF SYSTEM DIVISION 2 clears or per plant conditions.
2) Verify SF DIV 2 MOV'S IN TEST status light deenergizes.

Standard: Test switch is placed in NORMAL and annunciator is verified cleared and status light is verified deenergized.

Cue: None, self revealing
Cue examinee that IV is complete.

Comments

Clinton Power Station
Job Performance Measure (JPM)

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

1SF001, 1SF004, & 1SF002 have been stroke timed. 1SF004 has been identified as not meeting the ACCEPTANCE CRITERIA, and 1SF002 has been identified as being outside the LIMITING STROKE TIME.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE

CPS 9061.03C012, WEEK 12 – CM, SF, SM, LD ISOL VALVE OPERABILITY CHECKLIST is in progress with testing complete with the exception of the SF valves.

Suppression Pool Cleanup is secured and Suppression Pool Level is 19.1 ft.

SF will not be restarted when testing is complete.

You are directed to complete the testing for the SF valves IAW CPS 9061.03C012 steps 8.12.6 and 8.12.7.

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Job Performance Measure

Place RHR A in Shutdown Cooling
at the Remote Shutdown Panel

JPM Number: 40030104LSN01

Revision Number: 00

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		New format and numbering convention, revalidated. This replaces JPM 015200J003. Revision number reset to 0.

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Place RHR A in Shutdown Cooling at the Remote Shutdown Panel

JPM Number: 40030104LSN01 Revision Number:00

Task Number and Title: 400301.04, Complete in plant actions to perform Remote Shutdown tasks that DO Require MCR Evacuation.

K/A System	K/A Number	Importance (RO/SRO)	
205000	A1.06	3.7	3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

Testing Method: ☐ Simulate ☐ Perform **Faulted/Alternate Path:** ☐ Yes ■ No **SRO Only:** ☐ Yes ■ No

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 30 minutes Actual Time Used: _____ minutes

References: CPS No. 4003.01C008, RSP – Div 1 Shutdown Cooling Operation, Rev. 1a
CPS No. 4003.01C005, RSP – Div 1 SX Operation, Rev. 0

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

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

Comments: _____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

JPM Number: 40030104LSN01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SETUP CONDITIONS:

- Initialize to an IC with reactor pressure less than 104 psig (IC-91 set up)
- Turn off annunciators and recorders.

TASK STANDARDS:

- RHR Loop A has been placed in Shutdown Cooling from the Remote Shutdown Panel.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Copy of CPS No. 4003.01C008, RSP – Div 1 Shutdown Cooling Operation, Rev. 1a
- Copy of CPS No. 4003.01C005, RSP – Div 1 SX Operation, Rev. 0
- Personal Protective Equipment (PPE) required only if breakers are manipulated, and is spelled out in individual steps.

PROCEDURAL/REFERENCES:

- CPS No. 4003.01C008, RSP – Div 1 Shutdown Cooling Operation, Rev. 1a
- CPS No. 4003.01C005, RSP – Div 1 SX Operation, Rev. 0

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

JPM Number: 40030104LSN01

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE:

The plant has been shutdown and a cooldown is in progress with plant conditions ready to have RHR placed in Shutdown Cooling. Reactor Pressure is less than 104 psig.

A condition occurred requiring evacuation of the Main Control Room.

As the Reactor Operator you are directed to report to the Remote Shutdown Panel and place RHR Loop 'A' in Shutdown Cooling per 4003.01C008, RSP – Div 1 Shutdown Cooling Operation, through step 4.16.

1E12-F004A, RHR A Suppression Pool Suction Valve, was noted to be OPEN prior to MCR evacuation.

An Area Operator is standing by to perform any required operations.

NOTE TO EVALUATOR

When the Initiating Cue has been read by the student and acknowledged, provide a copy of 4003.01C008 to the examinee. In step 12, provide a copy of 4003.01C005 to the examinee.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

4.0 **DIV 1 SDC STARTUP**

1. 4.1
   Verify 1E12-F004A, RHR A Suppression Pool Suction Valve handswitch is matched to actual valve position (local verification may be necessary).

Standard: No action required. Handswitch "as found" is OPEN.

Cue: None required – refer to initiating cue.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

NOTE

Valves associated with C61-HS510 are listed in CPS 4003.01C005, RSP Div 1 SX Operation.

These valves can only be closed from the RSP, C61-HS50; there is no opening function.

***2. 4.2**
Verify/place following transfer switches to EMERG:

1. **C61-S1**
2. **C61-S6**
3. **C61-S7**
4. **C61-S8**
5. **C61-S9**
6. **C61-S12**
7. **C61-HS502**
8. **C61-HS510**

Standard:	Operator places the Transfer Switches to EMERG.
Cue:	None required.
Comments	Switches may be transferred in any order.

SAT ☐ UNSAT ☐ Comment Number _____

---

3. 4.3
   Shut 1E12-F024A, RHR A Test Valve To Suppression Pool.

Standard: No action required, condition should already be met.

Cue: None required.

Comments: Valve should already be shut.

SAT ☐ UNSAT ☐ Comment Number _____

CAUTION

Stopping RHR pump prior to 1E12-F024A being fully shut will result in system drain down.

4. 4.4
   IF RHR Pump A, 1E12-C002A is running,
   THEN Stop RHR Pump A.

Standard: No action required, Pump "as found" is stopped.

Cue: None required.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

CAUTION

MCR switches, automatic initiation signals and most protective interlocks are bypassed when operating from the RSP.

Rapid loss of RPV inventory could result if 1E12-F004A, 1E12-F024A, and/or 1E12-F064A are open when in SDC.

Placing RHR in SDC with RPV pressure > 104 psig can damage the RHR system.

***5. 4.5**

Shut:

1. **1E12-F004A, RHR A Suppression Pool Suction Valve.**
2. **1E12-F028A, RHR A To CNMT Spray A Shutoff Vlv.**
3. **1E12-F042A, LPCI From RHR A Shutoff Valve.**
4. **(Local) 1E21-F372, Wtr Leg Pump Supply To RHR Pump A. (Normally locked open) (RHR A Pump Rm, V-120)**

Standard:

- Operator verifies the following:
  1) GREEN light ON and RED light OFF for 1E12-F004A.
  2) GREEN light ON and RED light OFF for 1E12-F028A
  3) GREEN light ON and RED light OFF for 1E12-F042A
- Directs an Area Operator to shut 1E21-F372 (step 4.5.4).

Cue: When directed to shut 1E12-F372, report back as the Area Operator that 1E21-F372 is shut.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

4.6 Following sub-steps '1 & 2' may be performed concurrently and in any order:

***6. 4.6.1.**
(Local) At AB MCC 1A3-6D (1AP74E), AB 781' East:
1) Unlock and place 1E12-F008 breaker to ON.
2) At 1E12-F008 breaker cubicle, place ALARM BYPASS SWITCH to NORMAL.

Standard:	Directs Area Operator to turn breaker ON for 1E12-F008.
Cue:	When requested, report back as a local operator that the breaker for 1E12-F008 is ON and the Alarm Bypass switch is in NORMAL.
Comments	The position indicating lights will already be ON even though the breaker is OFF due to control power coming from a separate source. If operator questions why lights are already on, provide NO cue. SAT ☐ UNSAT ☐ Comment Number _____

4.6.2 This INOPs 1E12-F064A in the shut position to ensure that an inadvertent loss of RPV level does not occur. Pump minimum flow protection is maintained by securing the RHR A pump when SDC flow is < 1100 gpm.

***7. 4.6.2.1)**
Shut 1E12-F064A, RHR Pump A Min Flow Recirc Valve.

Standard: Operator takes the handswitch for1E12-F064A to Close and ensures the valve shuts by verifying the GREEN light is ON and the RED light is OFF.

Cue: None required.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8. 4.6.2.2)**
(Local) At AB 781' East, AB MCC 1A2-10C (1AP73E), place 1E12-F064A breaker to OFF.

Standard: Directs Area Operator to turn breaker OFF for 1E12-F064A..

Cue: When requested, report back as a local operator that the breaker for 1E12-F064A is OFF.

Comments Indicating lights will stay illuminated due to separate control power.

If operator questions lights being ON, restate that 1E12-F064A breaker is OFF.

SAT ☐ UNSAT ☐ Comment Number _____

***9.** **4.7**

Open 1E12-F009, Shutdown Cooling Inbd Suct Isol Vlv.

Standard:	Operator takes the handswitch for 1E12-F009 to Open and ensures the valve opens by verifying the GREEN light is OFF and the RED light is ON.
Cue:	None required.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***10.** **4.8**

Open 1E12-F008, Shutdown Cooling Outbd Suct Isol Vlv.

Standard:	Operator takes the handswitch for 1E12-F008 to Open and ensures the valve opens by verifying the GREEN light is OFF and the RED light is ON.
Cue:	None required.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

	***11.**	**4.9** **Open 1E12-F006A, RHR A Shutdown Cooling Suct Valve.**
Standard:		Operator takes the handswitch for 1E12-F006A to Open and ensures the valve opens by verifying the GREEN light is OFF and the RED light is ON.
Cue:		None required.
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

	12.	4.10 Shut 1SX082A, RHR Hx 1A Makeup Cond Inlet Valve per CPS 4003.01C005, RSP – Div 1 SX Operation (5.0)
Standard:		Operator closes 1SX082A by positioning H/S 1C61-HS507 to CLOSE and verifying the GREEN light is ON amd the RED light is OFF.
Cue:		Provide copy of 4003.01 C005.
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

13. 4.11

IF SSW Strainer 1A Outlet press, C61-R503 < 100 psig,

THEN Start Div 1 SX system per CPS 4003.01C005, RSP - Div 1 SX Operation.

Standard: Operator determines that SSW Strainer 1A Outlet Press, C61-R503 is ≥ 100 psig.

Cue: None required.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***14. 4.12**

Open 1E12-F014A, SSW Inlet RHR Hx A Valve.

Standard: Operator takes the handswitch for1E12-F014A to Open and ensures the valve opens by verifying the GREEN light is OFF and the RED light is ON.

Cue: None required.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***15. 4.13**
Open 1E12-F068A, RHR A Hx SSW Outlet Valve.

Standard: Operator takes the handswitch for1E12-F068A to Open and ensures the valve opens by verifying the GREEN light is OFF and the RED light is ON.

Cue: None required.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***16. 4.14**
Shut 1E12-F003A[T], RHR A Hx Outlet Valve.

Standard: Operator takes the handswitch for1E12-F003A to Close and holds the handswitch until verification that the GREEN light is ON and the RED light is OFF.

Cue: None required.

Comments [T] means the valve is a throttle valve.

SAT ☐ UNSAT ☐ Comment Number _____

17.	4.15 Verify open 1E12-F048A[T], RHR A Hx Bypass Vlv.
Standard:	Operator determines that 1E12-F048A is open by verifying the GREEN light is OFF and the RED light is ON.
Cue:	None required.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

CAUTION

Do not permit SDC flow to lower < 1100 gpm due to 1E12-F064A min flow protection for the RHR A pump being defeated (breaker is open, and F064A does not auto cycle from the RSP).

If SDC flow <1100gpm, RHR Pump A must be secured.

4.16

18. Start RHR Pump A, 1E12-C002A, and immediately open 1E12-F053A[T], RHR A To Feedwater S/D Cooling Rtrn Vlv.

Standard:

- Operator takes the handswitch for1E12-C002A to Start and ensures the pump starts by verifying the GREEN light is OFF and the RED light is ON.
- Operator takes the handswitch for1E12-F053A to Open and ensures the valve opens by verifying the GREEN light is OFF and the RED light is ON.
- Verifies that SDC flow quickly increases to >1100 gpm.

Cue:	None required.
Comments	Operator should report that the task is complete, if not, JPM may be terminated by the evaluator at this point.

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

RHR A has been placed in Shutdown Cooling at the Remote Shutdown Panel.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS AND INITIATING CUE

The plant has been shutdown and a cooldown is in progress with plant conditions ready to have RHR placed in Shutdown Cooling. Reactor Pressure is less than 104 psig.

A condition occurred requiring evacuation of the Main Control Room.

As the Reactor Operator you are directed to report to the Remote Shutdown Panel and place RHR Loop 'A' in Shutdown Cooling per 4003.01C008, RSP – Div 1 Shutdown Cooling Operation, through step 4.16.

1E12-F004A, RHR A Suppression Pool Suction Valve, was noted to be OPEN prior to MCR evacuation.

An Area Operator is standing by to perform any required operations.

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Job Performance Measure

Lineup SLC Test Tank for RPV Injection

JPM Number: 44110306NSN01

Revision Number: 04

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

JPM Number: 44110306NSN01 **Revision: 03**

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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Revision Record (Summary)

Revision	Date	Description
01	Unknown	Unknown
02	08/01/2001	Updated to Exelon Format.
03	10/04/2004	Revised to Exelon format and JPM numbering convention. Old JPM #045200J008
04		Incorporated NRC validation comments.

Clinton Power Station
Job Performance Measure (JPM)

JPM Number: 44110306NSN01 **Revision: 03**

Operator's Name: _____

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

JPM Title: Lineup SLC Test Tank for RPV Injection

JPM Number: 44110306NSN01 Revision Number: 03

Task Number and Title: 441103.06 Support Emergency RPV Injection using SLC Test Tank

K/A System	K/A Number	Importance (RO/SRO)	
295031	EA1.08	3.8	3.9

Suggested Testing Environment: In Plant

Actual Testing Environment: ☐ Simulator ■ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 30 minutes Actual Time Used: _____ minutes

References: CPS No. 4411.03 Injection Flooding Sources, Appendix D, Rev. 6b.

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: _____

JPM Number: 44110306NSN01 **Revision: 03**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

TASK STANDARDS:

Simulates manual lineup of the SLC Test Tank for RPV Injection.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

Keys to operate locked valves (valves will not be operated)

Marked procedure with MCR steps 1.1, 1.2 and 1.3 completed of CPS No. 4411.03, Appendix D.

Leather Gloves are required as Personal Protective Equipment (PPE) when climbing ladders.

SLC is within a FEMA 2 area. Special requirements are in place for what materials may be taken into the containment and how they are carried. Requirements are posted at the entrances to the Containment.

PROCEDURAL/REFERENCES:

CPS No. 4411.03 Injection Flooding Sources, Rev 6b, Appendix D.

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

Provide a marked procedure with MCR steps 1.1, 1.2 and 1.3 completed of CPS No. 4411.03, Appendix D.

JPM Number: 44110306NSN01 **Revision: 03**

INITIAL CONDITIONS AND INITIATING CUE:

CAUTION

- No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.
- Do NOT shine any type light into a panel.

Perform the in plant portion of CPS No. 4411.03, Appendix D, to lineup the SLC Test Tank to the RPV for Injection.

NOTE TO EVALUATOR

When the Initiating Cue has been read by the student and acknowledged:

- Provide a marked procedure with MCR steps 1.1, 1.2 and 1.3 completed of CPS No. 4411.03, Appendix D.

START TIME: _____

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

CPS No. 4411.03 Injection Flooding Sources
Appendix D: SLC
Method 1.0 SLC Test Tank

*** 1.**	**1.4** **Open 1MC018, Makeup Condensate to SLC Sys.** **(On gallery next to SLC Storage Tank)**
Standard:	Simulates opening 1MC018 by turning handwheel in COUNTER-CLOCKWISE direction.
Cue:	1MC018 is as you indicated.
Comments	Leather Gloves (PPE) are required when climbing the ladder.
	SAT ☐ UNSAT ☐ Comment Number _____

NOTE

1C41-F031, SLC Test Tank Outlet Valve is interlocked with 1C41-F001A(B), Standby Liquid Stor Tank Outlet Valves.
When 1C41-F031 is open, valves 1C41-F001A(B) will not open, but the SLC pump(s) will run.

*** 2. 1.5**
Open 1C41-F031, SLC Test Tank Outlet.
(Normally locked shut) (CNMT 778', AZM-75)

Standard:	Simulates unlocking and opening 1C41-F031 by turning handwheel in COUNTER-CLOCKWISE direction.
Cue:	1C41-F031 is as you indicated.
Comments	1C41-F031 is padlocked shut. Need 3210 key.

SAT ☐ UNSAT ☐ Comment Number _____

*** 3. 1.6**
Establish and maintain a visible SLC Test Tank sightglass level using 1C41-F014, Makeup Condensate to SLC Sys.
(Normally locked shut) (CNMT 778', AZM-80)

Standard:	Checks SLC Test Tank Level. Simulates unlocking and throttling opening 1C41-F014 by turning handwheel in COUNTER-CLOCKWISE direction. Informs MCR the line up for SLC Test Tank injection into RPV is complete.
Cue:	Level in Test Tank is low in sightglass. 1C41-F014 is as you indicated, level in sightglass is rising. 1C41-F014 is as you indicated, level in sightglass is steady. Acknowledge as MCR the line up for SLC Test Tank injection into RPV is complete.
Comments	1C41-F014 is padlocked shut. Initially indicate a level low in the sightglass so operator will have to simulate an initial fill of tank.

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Acknowledge as MCR that SLC Test Tank is lined up for injection into RPV.

STOP TIME: _____

Initiating Cue

CAUTION

- No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.
- Do NOT shine any type light into a panel.

Perform the in plant portion of CPS No. 4411.03, Appendix D, to lineup the SLC Test Tank to the RPV for Injection.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Operate RPS Scram Breakers

JPM Number: 44110804LSN01

Revision Number: 04

Date:

Developed By:		
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
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:

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

- If the Current Procedure Rev. and the Procedure Rev. Referenced are different then revise the JPM.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	Unknown	New JPM
01	Unknown	Unknown
02	10/15/03	New format
03	9/2/04	New format and numbering convention, revalidated. This replaces JPM 045200J022.
04		Minor changes, revalidated.

JPM Number: 44110804LSN01

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Operate the Scram Breakers

JPM Number: 44110804LSN01 Revision Number:04

Task Number and Title: 441108.04 Perform alternate rod insertion using the solenoids.

K/A System	K/A Number	Importance (RO/SRO)	
295015	AA1.02	4.0	4.2

Suggested Testing Environment: Plant

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: 10 minutes Actual Time Used: _____ minutes

References: CPS No. 4411.08 Rev 5c, Alternate Control Rod Insertion

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: _____

JPM Number: 44110804LSN01

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.

No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

TASK STANDARDS:

- Simulates scramming the reactor from outside of the MCR by operating the breakers for the RPS Scram Solenoids IAW CPS No. 4411.08, ALTERNATE CONTROL ROD INSERTION.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None
- No additional Personal Protective Equipment (PPE) required.

PROCEDURAL/REFERENCES:

- CPS No. 4411.08 Rev 5c, ALTERNATE CONTROL ROD INSERTION

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

INITIAL CONDITIONS AND INITIATING CUE:

A reactor scram has occurred but all rods are NOT at 00. The MCR is attempting to insert control rods using Alternate Rod Insertion methods. The CRS directs you to operate the RPS Scram Solenoids breakers in accordance with CPS No. 4411.08, ALTERNATE CONTROL ROD INSERTION, Step 2.4. Report when the task is complete.

NOTE TO EVALUATOR

When the Initiating Cue has been read by the student and acknowledged, provide a copy of 4411.08 to the student.
DO NOT allow examinee to open panel doors. Pictures are provided.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in BOLDED letters. Failure to meet the standards for a critical step constitutes failure of the Job Performance Measure. The sequence of steps is assumed unless denoted in the comments section of the JPM.

PERFORMANCE STEPS

NOTE
Steps 1 and 2 can be performed in any order

CPS No. 4411.08, ALTERNATE CONTROL ROD INSERTION

***1 2.4.1**

(Local) At NSPS 120VAC SOL PWR DIST PNL "A", place following breakers to OFF. (CB 802', TB Access Corridor)

1C71-P011A: Brks CB29 through 32

Standard:	Operator locates NSPS 120 VAC DIST. PNL. "A" (1C71-P011A) and simulates placing the following breakers in the OFF position: CB29 CB30 CB31 CB32
Cue:	Provide a picture of the panel internal breakers. As each breaker is simulated being placed in the OFF position, cue: "The identified component is in the position described."
Comments	No additional electrical PPE is required for this type of breaker.

SAT ☐ UNSAT ☐ Comment Number _____

	***2**	**2.4.1** **(Local)** **At NSPS 120VAC SOL PWR DIST PNL "B", place following breakers to OFF. (CB 802', TB Access Corridor)** **1C71-P011B: Brks CB23 through 26**
Standard:		Operator locates NSPS 120 VAC DIST. PNL. "B" (1C71-P011B) and simulates placing the following breakers in the OFF position: CB23 CB24 CB25 CB26
Cue:		Provide a picture of the panel internal breakers. As each breaker is simulated being placed in the OFF position, cue: "The identified component is in the position described."
Comments		No additional electrical PPE is required for this type of breaker.
		SAT ☐ UNSAT ☐ Comment Number _____

	3.	Notify Main Control Room that steps 2.4.1 is complete.
Standard:		Examinee simulates contacting MCR and stating step 2.4.1 of 4411.08 is complete.
Cue:		Repeat back communication verbatim, then state, " Control rods are now at "00" and have stopped moving inward."
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

	***4**	**2.4.2** **When control rods are not moving inward then place breakers opened in 2.4.1 to ON.**
Standard:		Operator locates NSPS 120 VAC DIST. PNL. "A" (1C71-P011A) and simulates placing the following breakers in the ON position: CB29 CB30 CB31 CB32 Operator locates NSPS 120 VAC DIST. PNL. "B" (1C71-P011B) and simulates placing the following breakers in the ON position: CB23 CB24 CB25 CB26
Cue:		As each breaker is simulated being placed in the ON position, cue: "The identified component is in the position described."
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

	5	Operator reports to MCR that breakers listed in 2.4.1 are ON. OR ALTERNATELY Operator reports to MCR that step 2.4.2 is complete.
Standard:		Report made to MCR.
Cue:		Repeat back communication verbatim.
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

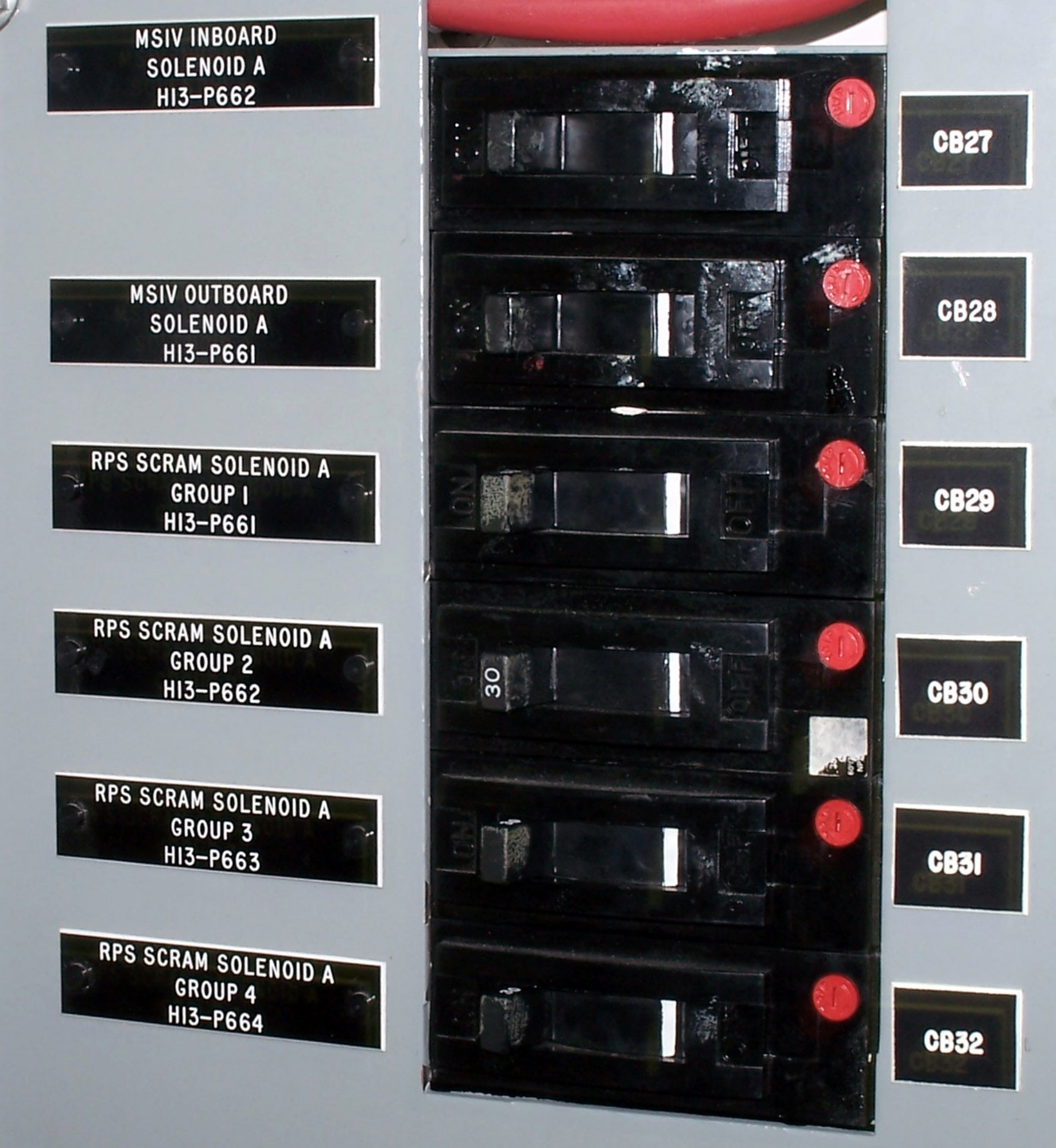
Breakers 23 through 26 and 29 through 32 are in the ON position per step 2.4.2 of CPS 4411.08.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Initiating Cue

A reactor scram has occurred but all rods are NOT at 00. The MCR is attempting to insert control rods using Alternate Rod Insertion methods. The CRS directs you to operate the RPS Scram Solenoids breakers in accordance with CPS No. 4411.08, ALTERNATE CONTROL ROD INSERTION, Step 2.4. Report when the task is complete.


MSIV INBOARD
SOLENOID A
HI3-P662
MSIV OUTBOARD
SOLENOID A
HI3-P661
RPS SCRAM SOLENOID A
GROUP I
HI3-P661
RPS SCRAM SOLENOID A
GROUP 2
HI3-P662
RPS SCRAM SOLENOID A
GROUP 3
HI3-P663
RPS SCRAM SOLENOID A
GROUP 4
HI3-P664
CB27
CB28
CB29
CB30
CB31
CB32
ON
OFF
30


NSPS 120VAC.
SOL. PWR. DIST. PNL. A
IC71-P011A
EOP RELATED
SEISMIC QUALIFIED EQUIPMENT
USE OF RADIO TRANSMITTERS IN THIS AREA IS PROHIBITED


MSIV OUTBOARD SOLENOID B H13-P661
MSIV INBOARD SOLENOID B H13-P662
RPS SCRAM SOLENOID B GROUP 1 H13-P661
RPS SCRAM SOLENOID B GROUP 2 H13-P662
RPS SCRAM SOLENOID B GROUP 3 H13-P663
RPS SCRAM SOLENOID B GROUP 4 H13-P664
CB21
CB22
CB23
CB24
CB25
CB26


NSPS 120VAC.
SOL. PWR. DIST. PNL. B
1671-P011B
EOP RELATED
SEISMIC QUALIFIED EQUIPMENT
USE OF RADIO TRANSMITTERS IN THIS AREA IS PROHIBITED