CLINTON POWER STATION

Job Performance Measure

Manual Transfer of Distribution Panel Loads (NSPS Solenoid / RPS)
from ALTERNATE POWER to INVERTER

JPM Number: JPM026

Revision Number: 03

Date: 06/23/2015

Developed By:	**W. D. Kiser**	**06/23/15**
	Instructor	**Date**
Validated By:	**/s Mike Antonelli**	**7/17/15**
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

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:

- Manually Transfer of Distribution Load Panel Loads (NSPS Solenoid) (RPS) FROM Alternate Power TO the Inverter IAW CPS 3509.01, Rev 021, INSTRUMENT POWER SYSTEM (IP).

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 3509.01, Rev 021, INSTRUMENT POWER SYSTEM (IP)

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- Provide examinee the procedure.
- Do NOT allow examinee to shine any type light into a panel.
- All pre-job briefings are completed.
- Provide examinee with a marked up copy of CPS 3509.01 INSTRUMENT POWER SYSTEM (IP) showing step 8.3.6 in progress (step 8.3.6.1, 8.3.6.2 complete and 8.3.6.3 circled).

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Job Performance Measure (JPM)

INITIAL CONDITIONS:

- Plant is in Mode 1.
- RPS Solenoid Inverter "A" has just been restored from a short maintenance period.
- The RPS Solenoid Inverter "A" has been energized per Section 8.3.6 steps 1 and 2. It is now desired to transfer the Dist. Panel loads back to the inverter per step 8.3.4.
- MSIV solenoid currents have been verified normal (solenoids are reset).
- The A and B solenoids for each Control Rod have been verified energized.

INITIATING CUE:

CAUTION

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

You are directed to manually Transfer Distribution Panel loads for RPS Solenoid Bus "A" FROM Alternate Power TO the Inverter per 3509.01, section 8.3.4.

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 3509.01, Instrument Power System (IP)
8.3.4 Manual Transfer of Distribution Panel Loads (NSPS Solenoid) (RPS) FROM Alternate Power TO the Inverter

8.3.4.1	Verify LOSS OF SYNC lamp not illuminated.
Standard:	At RPS Solenoid Inverter "A" verifies the loss of sync lamp is not illuminated.
Cue:	If loss of sync lamp is illuminated, provide cue "Loss of sync lamp is not illuminated".
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.3.4.2	**IF** MSIVs are open, **THEN** Verify MSIV solenoids are reset using ammeters in NSPS Panels 1H13-P661 and P662.
Standard:	Verifies MSIV Solenoids are reset.
Cue:	If examinee request status of MSIV Solenoids from the B RO, report "MSIV Solenoids are reset".
Comments	Stated in the initial conditions all solenoids were reset.

SAT ☐ UNSAT ☐ Comment Number _____

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8.3.4.3	Check A and B solenoids for each control rod to ensure they are energized prior to transferring sources (provided adequate time is available for the check).
Standard:	Ensures all control rods A and B solenoids are energized.
Cue:	
Comments	Stated in the initial conditions all solenoids were energized.
	SAT ☐ UNSAT ☐ Comment Number _____

***8.3.4.4**	**Place TRANSFER SWITCH to INVERTER.**
Standard:	At RPS Solenoid Inverter "A", rotates Transfer Switch to INVERTER position.
Cue:	Component is in the position you've described.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.3.4.5	Push and <u>then</u> release Power Monitor RESET push-button.
Standard:	At RPS Solenoid Inverter "A", pushes then releases Power Monitor Reset push button.
Cue:	Component is in the position you've described.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
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8.3.4.6	Verify power monitor alarms are out.
Standard:	At RPS Solenoid Inverter "A" power monitor, verifies alarms are out (Over/Under Freq and Over/Under Voltage lights).
Cue:	If power monitor lights are illuminated, provide cue "Over/Under Freq" and/or "Over/Under Voltage lights are <u>not</u> illuminated".
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.3.4.7**	**Place 120 VAC OUTPUT BKR, CB-3 to ON.**
Standard:	At RPS Solenoid Inverter "A", places 120 vac Output Bkr, CB-3, to ON.
Cue:	Component is in the position you've described.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.3.4.8	**<u>IF</u>** SMngt or NSED recommends, **<u>THEN</u>** At 1C71-S005A(B), NSPS Sol Pwr Bypass Regul Xfmr: Place AC INPUT (POWER) Bkr to OFF (down).
Standard:	Leaves the Bypass Regul Transformer energized and in standby <u>or</u> asks the MCR for direction on what status to leave the Bypass Regul Transformer in.
Cue:	If requested, as the MCR direct the operator to leave the Bypass Regul Transformer energized and in standby. <u>DO</u> <u>NOT</u> turn the AC Input Bkr to OFF.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

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TERMINATING CUES:

CPS 3509.01, Instrument Power System (IP), Section 8.3.4 complete.

STOP TIME: _____

CLINTON POWER STATION

Job Performance Measure

RSP – Div 2 LPCI Operation

JPM Number: JPM533

Revision Number: 00

Date: 06/23/2015

Developed By:	**W. D. Kiser**	**06/23/15**
	Instructor	**Date**
Validated By:	**/s Mike Antonelli**	**7/17/15**
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

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:

- Div 2 LPCI is injecting to the RPV.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS No. 4003.01C011, Rev 1a RSP – Div 2 LPCI Operation

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- Provide examinee the procedure.
- Do NOT allow examinee to shine any type light into a panel.
- All pre-job briefings are completed.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

A plant transient has occurred.

The plant is shutdown with High Pressure Core Spray and Reactor Core Isolation Cooling inoperable. 4160V Bus 1A1 has de-energized due to a fault. Automatic Depressurization System was activated due to Reactor Coolant leak into the Secondary Containment. The Main Control Room had to be abandoned due to a major fire.

You are an Extra Operator.

INITIATING CUE:

CAUTION

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

Inject into the RPV using CPS 4003.01C011, RSP – Div 2 LPCI Operation Section 4.0, DIV 2 LPCI STARTUP.

The Remote Shutdown Panel (RSP) is manned and an additional Operator has been dispatched to AB 707' to support you as required.

Report to the CRS when Div 2 LPCI is injecting to the RPV.

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 4003.01C011, Rev 1a RSP – Div 2 LPCI Operation

EVALUATOR NOTE: Do NOT allow the Examinee to remove items from the RSP supply podium. Cue the examinee that required items are in the examinee's possession.

STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
1	Open 1E12-F004B, RHR PUMP 1B SUCT VLV.	***4.1** **At AB MCC 1B2 Cub 5C (1AP76E5C), AB 781' West, Examinee moves the key operated switch for 1E12-F004B, RHR PUMP 1B SUCT VLV to "OPEN"**.			
2	Start RHR PUMP 1B, 1E12-C002B.	***4.2** **At 4160V Bus 1B1 Cub D (1AP09ED), AB 781' West, Examinee moves the REMOTE SHUTDOWN CIRCUIT BREAKER CONTROL handswitch to "CLOSE"**.			
EVALUATOR NOTE: For the following steps, cues will be provided when requested from the Operator who was dispatched to AB 707'. Steps 4.4.1 and 4.4.2 may be performed more than once.					

Clinton Power Station
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STEP	ELEMENT	STANDARD	SAT	UNSAT	Comment Number
3	Verify RHR PUMP ROOM 1B SUPPLY FAN, 1VY06C starts.	4.3 Examinee contacts the Operator in AB 707' and requests status of 1VY06C. ***Cue:*** *1VY06C is running.*			
4	Monitor pump/system parameters.	4.4.1 Examinee contacts the Operator in AB 707' and requests RHR B pump ΔP. ***Cue:*** *RHR pump ΔP is 374 psid.*			
		4.4.2 Examinee determines proper operation of 1E12-F064B, RHR PUMP 1B MIN FLOW VLV indication (red light ON, green light OFF). ***Cue:*** *If requested, red light is ON and green light is OFF.*			
EVALUATOR NOTE: For the following step, cue for RPV pressure will be provided when requested from the Operator at the RSP.					

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STEP	**ELEMENT**	**STANDARD**	**SAT**	**UNSAT**	**Comment Number**
5	**WHEN** RPV pressure < 472 psig, **THEN** Open 1E12-F042B, RHR PUMP 1B LPCI CNMT VLV.	***4.5** Examinee contacts the Operator at the RSP and requests RPV pressure. ***Cue:*** *RPV pressure is 250 psig and lowering.* **At AB MCC 1B3 Cub 8C (1AP77E8C), AB 781' West, Examinee moves the switch for 1E12-F042B, RHR PUMP 1B LPCI CNMT VLV to "OPEN".** ***Cue:*** *Red light is ON and green light is OFF.*			

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

Div 2 LPCI is injecting to the RPV IAW CPS No. 4003.01C011 RSP – Div 2 LPCI Operation.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

CLINTON POWER STATION

Job Performance Measure

Place an IA Ring Header Automatic Isolation Valve Into Service

JPM Number: JPM428

Revision Number: 01

Date: 06/23/2015

Developed By:	**W. D. Kiser**	**06/23/15**
	Instructor	**Date**
Validated By:	**/s Mike Antonelli**	**7/17/15**
	SME or Instructor	**Date**
Reviewed By:		
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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:

- Place an IA Ring Header Automatic Isolation Valve Into Service IAW CPS No. 3214.01 rev. 26d, PLANT AIR (IA & SA).

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS No. 3214.01 rev. 26d, PLANT AIR (IA & SA).

EVALUATOR INSTRUCTIONS:

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

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are an extra Operator.

The Control Building IA ring header has automatically isolated due to a leak on the Radwaste Building ring header. The leak has been subsequently repaired.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.
- No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

Restore the Control Building IA ring header to service in accordance with CPS No. 3214.01, PLANT AIR (IA & SA), section 8.2.1.5, by supplying air from the Aux/Fuel Building IA Ring Header.

Inform the MCR when the task is complete.

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 3214.01, PLANT AIR (IA & SA)
8.2.1.5 Repressurizing the Isolated Ring Header (Refer to Table 2, pg 29 and Figure 1, pg 30)

***8.2.1.5.1**	**Slowly open one or both of the auto isolation valve bypasses as necessary, and slowly repressurize the ring header.**
Standard:	Locates and simulates operating (slowly per caution) 1IA024, Auto Isolation Bypass. Turns handwheel in the CCW direction until resistance is felt in the open position.
Cue:	Pressure indicator 1PI-IA055 shows an increasing pressure (1PI-IA055 is on left hand side if facing the Aux Bldg).
Comments	1IA024 and 1IA022 are just west of the CCW Expansion Tank.
	SAT ☐ UNSAT ☐ Comment Number _____

8.2.1.5.2	Wait until the isolated ring header pressure is 70 psig or above and equalized across the auto isolation valves.
Standard:	Operator locates pressure gages and verifies pressure has equalized.
Cue:	• After several seconds - 1PI-IA055 reads nearly the same pressure as indicated on 1PI-IA054. • If requested, flow noise has died off to near nothing. • If requested, Low Pressure Control Building IA Ring Header annunciator has cleared.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.2.1.5.3**	**Return the Latch/Unlatch lever arm to the Latch Position.**
Standard:	Operator locates and simulates moving the lever to the latch position for 1IA022.
Cue:	Lever arm is latched and holding.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.2.1.5.4	Verify the auto isolation valve opens.
Standard:	Operator locates 1IA022 and observes valve position indication to verify open.
Cue:	Component is in the position described.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.1.5.5**	**Close or check closed the auto isolation valve bypasses.**
Standard:	Operator locates and simulates turning 1IA024 handwheel clockwise until it stops turning.
Cue:	1IA024 handwheel stops moving.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2.1.5.6	Restore air loads as necessary.
Standard:	Operator inquires if there are any loads that need to be restored at this time.
Cue:	No further loads are required to be placed in service.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The Control Building IA ring header is being supplied by air from the Aux/Fuel Building IA Ring Header.

STOP TIME: _____