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Job Performance Measure

DC Load Shedding During a Station Blackout per CPS No. 4200.01C002

JPM Number: 04200.0104

Revision Number: 04

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**M. Griffin**	**10/17/03**
	SME or Instructor	**Date**
Review By:	**P. K. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 04200.0104 **REVISION: 04**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

JPM NUMBER: 04200.0104 **REVISION: 04**

Revision Record (Summary)

1. **Revision 00,** This is a new JPM
2. **Revision 01,** Unknown
3. **Revision 02,** Unknown
4. **Revision 03,** New format
5. **Revision 04,** Incorporate NRC comments, re-validation not required.

JPM NUMBER: 04200.0104 **REVISION: 04**

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

JPM Title/Number: 04200.0104, DC Load Shedding During a Station Blackout
Revision Number: 04

Task Number and Title: 04200.0104, DC Load Shedding During a Station Blackout

Suggested Testing Environment: Plant

Actual Testing Environment: ■ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ■ Perform **Faulted:** ❑ No **Alternate Path:** ❑ No

Time Critical: ❑ No

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

References: CPS No. 4200.01C002

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: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: 04200.0104 **REVISION: 04**

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:

N/A

TASK STANDARDS:

Complete DC load shedding in accordance with CPS 4200.01C002.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS No. 4200.01C002, DC LOAD SHEDDING DURING A SBO.

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

The plant has experienced a Station Blackout from rated power.
The Station Blackout is expected to last more than one hour.

INITIATING CUE:

You are directed to perform DC load shedding on Division 1in accordance with CPS No. 4200.01C002, DC LOAD SHEDDING DURING A SBO.

START TIME: _____

JPM NUMBER: 04200.0104 **REVISION: 04**

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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.

==========

Note to Examiner
If asked: Circuit 13, "Prevents Starting DG" and Circuit 32, "Prevents Starting Div. 1 ECCS" should be opened.

PERFORMANCE STEPS

In MCC/Cubicle 1A-11A

* 1. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 7 Emerg Ltg Cab 164, 1LL64E**

_____

Standard Circuit breaker 7 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

In MCC/Cubicle 1A-11A

* 2. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 13 DG 1A Control Pnl, 1PL12JA**

_____

Standard Circuit breaker 13 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 04200.0104 **REVISION: 04**

In MCC/Cubicle 1A-12A

* 3. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 18 Opt Isol Cab, 1PL56JA & 1PL56JB**
_____

Standard Circuit breaker 18 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

In MCC/Cubicle 1A-12A

* 4. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 26 Control Panel 1H13-P661B, LPCS Control Power**
_____

Standard Circuit breaker 26 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

In MCC/Cubicle 1A-12A

* 5. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 30 Control Panel 1H13-P601, Position for 1E12-R611A/R612A, R609A/B**
_____

Standard Circuit breaker 30 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 04200.0104 **REVISION: 04**

In MCC/Cubicle 1A-12A

* 6. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 32 Control Panel 1H13-P661, RHR A Control Power**

_____

Standard Circuit breaker 32 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

In MCC/Cubicle 1A-12A

* 7. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 33 Control Panel 1H13-P661, RPS A Control Power**

_____

Standard Circuit breaker 33 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

In MCC/Cubicle 1A-12A

* 8. **AT DC MCC 1A (1DC13E), OPEN CIRCUIT BREAKER: CKT 36 Control Pnl, 1G36-P002**

_____

Standard Circuit breaker 36 is simulated being placed in the OFF position.

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 04200.0104 **REVISION: 04**

STOP TIME: _____

TERMINATING CUES:

Division 1 DC load shedding has been completed in accordance with CPS No. 4200.01C002.

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
295004	AA1.01	3.3	3.4

Ability to operate and/or monitor the D.C. electrical distribution systems as they apply to PARTIAL OR COMPLETE LOSS OF D.C. POWER.

JPM NUMBER: 04200.0104 **REVISION: 04**

INITIAL CONDITIONS:

The plant has experienced a Station Blackout from rated power.
The Station Blackout is expected to last more than one hour.

INITIATING CUE:

You are directed to perform DC load shedding on Division 1in accordance with CPS No. 4200.01C002, DC LOAD SHEDDING DURING A SBO.

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CLINTON POWER STATION

Job Performance Measure

Reset a Recirc Flow Control Valve Lockout

JPM Number: 3302.0116

Revision Number: 01

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**J. Anderson**	**10/17/03**
	SME or Instructor	**Date**
Review By:	**P. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 3302.0116 **REVISION: 01**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

JPM NUMBER: 3302.0116 **REVISION: 01**

Revision Record (Summary)

1. **Revision 00,** This is a new JPM
2. **Revision 01,** Incorporate NRC comments, revalidation not required.

JPM NUMBER: 3302.0116 **REVISION: 01**

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

JPM Title/Number: 3302.0116, Reset a Recirc Flow Control Valve Lockout
Revision Number: 01
Task Number and Title: 330201.16, Complete in plant actions to perform FCV Lockout/Reset
Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ■ Perform **Faulted:** ❑ No **Alternate Path:** ❑ No

Time Critical: ❑ No

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

References: CPS 3302.01, Reactor Recirculation

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: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: 3302.0116 **REVISION: 01**

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:

The simulator can be operating at any power with Recirc in operation. Manually lockout the B Recirc Flow Control Valve and then restart the HPU. Lower the Flow controller output to cause a 3% Servo Error.

TASK STANDARDS:

The FCV lock out is reset.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 3302.01 Reactor Recirculation

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

You are the A CRO. The plant is operating at power. The B Recirc Flow Control Valve was manually locked out to perform maintenance. The maintenance is complete and the HPU has been restarted.

INITIATING CUE:

You are to reset the Flow Control Valve lockout.

START TIME: _____

JPM NUMBER: 3302.0116 **REVISION: 01**

==========

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.	Maintain steady state power and balanced recirc loop flows, if possible, by adjusting the operable FCV.
Standard	No adjustment needed
CUE	
Comments	SAT UNSAT Comment Number

2.	Determine/correct the cause of the lockout from alarm indicators on 1H13-P614 and/or the annunciators on 1H13-P680.
Standard	Determines that annunciator 5003-4H is due to the manual lockout.
CUE	
Comments	SAT UNSAT Comment Number

3.	Reset any FCV runback signal per section 8.4.2.
Standard	No FCV runback signal is present.
CUE	
Comments	SAT UNSAT Comment Number

***4.**	**Zero the A(B) loop SERVO ERROR.**
Standard	**Raises the Flow Controller output with the slide switch to Zero the SERVO ERROR**
CUE	
Comments	SAT UNSAT Comment Number

5.	Restore the HPU A(B) equipment to normal operation per CPS 3302.02, Reactor Recirculation Flow Control Hydraulic System.
Standard	The HPU is already running
CUE	
Comments	SAT UNSAT Comment Number

JPM NUMBER: 3302.0116 **REVISION: 01**

***6.**	**Depress the A(B) FCV A/B Motion Inhibit Reset.** **Verify the lead HPU becomes operational, and FCV motion is no longer inhibited.**
Standard	**Depresses the B FCV Motion Inhibit Reset switch**
CUE	
Comments	Annunciator 5003-4H will reset and the Motion Inhibit light for FCV B will go out. If asked about the status of the B lead RR HPU, respond that it is in service.
	SAT UNSAT Comment Number

STOP TIME: _____

TERMINATING CUES:

The B Recirc Flow Control Valve lockout is reset.

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
202002	A4.08	3.3	3.3

Ability to manually operate and/or monitor Recirculation system flow in the control room.

JPM NUMBER: 3302.0116 **REVISION: 01**

INITIAL CONDITIONS:

You are the A CRO. The plant is operating at power. The B Recirc Flow Control Valve was manually locked out to perform maintenance. The maintenance is complete and the HPU has been restarted.

INITIATING CUE:

You are to reset the Flow Control Valve lockout.

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CLINTON POWER STATION

Job Performance Measure

Manual Startup Low Pressure Core Spray-Logic Not Available (Alternate Path)

JPM Number: 3313.0101

Revision Number: 05

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**J. Anderson**	**10/17/03**
	SME or Instructor	**Date**
Review By:	**P. K. Ryan**	**12/15/03**
	Operations Representative	**Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Revision Record (Summary)

1. **Revision 03,** JPM updated to new Exelon format.
2. **Revision 04,** Updated for new procedure revision
3. **Revision 05,** Incorporate NRC comments, revalidation is not required.

JPM NUMBER: 3313.0101 **REVISION**: 05

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

JPM Title: Manual Startup Low Pressure Core Spray-Logic Not Available
JPM Number: 3313.0101 Revision Number: 05
Task Number and Title:
331301.03 Complete control room actions to perform manual LPCS initiation with the logic not operable.

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ■ Perform **Faulted:** ■ Yes **Alternate Path:** ■ Yes

Time Critical: ❑ No

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

References: CPS No. 3313.01, LOW PRESSURE CORE SPRAY. Rev. 15, Section 8.1.3 & 8.1.4

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:_____

Evaluator's Signature: _____ Date:_____

JPM NUMBER: 3313.0101 **REVISION**: 05

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:

1. Initialize to any suitable IC where LPCS can inject to the RPV.
2. Insert malfunction to prevent LPCS Pump Min Flow Recirc Valve from closing automatically.
3. Insert I/O override to prevent 'Manual Initiation Pushbutton' from working.

TASK STANDARDS:

- Low Pressure Core Spray is running and injecting into the RPV at maximum attainable flow.
- Identified failure of system to initiate and the need to take manual action to start LPCS.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS No. 3313.01, LOW PRESSURE CORE SPRAY, Rev. 14, Section 8.1.3 & 8.1.4

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

You are the B CRO.
A loss of high pressure injection has caused low Reactor water level.

INITIATING CUE:

You are directed to manually initiate LPCS to inject with maximum attainable flow into the RPV. Report when the task is complete.

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

8.1.3 Manual Initiation – Logic Operable

1. Arm and Depress
LPCS/LPCI FM RHR A MANUAL INITIATION push-button

STANDARD: The operator rotates collar to the 'ARMED' position and depresses the pushbutton. Determines that no action has occurred.

CUE: As CRS acknowledge the report that LPCS has not started.

COMMENTS: Operator should recognize that the LPCS logic is not operable and proceed to section 8.1.4, 'Manual Initiation – Logic Not Operable.

SAT _____ UNSAT _____Comment Number_____

8.1.4 Manual Initiation – Logic Not Operable

1. During LPCS operation, verify as appropriate that 1E21-F011, LPCS Pump Min Flow Recirc Valve:
   Opens whenever LPCS flow is < 875 gpm, and
   Shuts whenever LPCS flow is ≥ 875 gpm.

STANDARD: No action necessary, pump has not been started yet.

CUE:

COMMENTS: After pump is started and flow increases above 875 gpm operator should notice that 1E21-F011 has not closed, and takes action to close 1E21-F011.

SAT _____ UNSAT _____ Comment Number_____

***2. Start LPCS Pump, 1E21-C001**

STANDARD: Operator places control switch for 1E21-C001 to the 'START' position. Observes RED light ON, GREEN light OFF. Observes LPCS motor current.

CUE:

COMMENTS:

SAT _____ UNSAT _____ Comment Number_____

---

3. Verify LPCS Pmp Rm Sply Fan, 1VY01C starts.

STANDARD: Operator verifies 1VY01C is running, by observing RED light ON.

CUE:

COMMENTS:

SAT _____ UNSAT _____ Comment Number_____

***4. When RPV pressure < 472 psig,
Open 1E21-F005, LPCS To CNMT Outbd Isol Valve.**

STANDARD: Operator places control switch for 1E21-F005 to the 'OPEN' position. Observes RED light ON.

Operator ensures flow is increasing by observing LPCS Pump Flow Meter (E21-R600).

CUE:

COMMENTS:

SAT _____ UNSAT _____ Comment Number_____

***5.** **Operator observes when flow is ≥ 875 gpm that 1E12-F011, LPCS Min Flow Recirc Valve has not closed and closes it by taking the control switch for 1E21-F011 to close**

STANDARD: The operator places control switch for 1E21-F011 to close. Observes RED light is OFF and GREEN light is ON.

CUE:

COMMENTS: This step may be performed anytime after flow increases above 875 gpm.

SAT _____ UNSAT _____ Comment Number_____

---

6. Restore and maintain level using 1E21-F005, LPCS To CNMT Outbd Isol Valve.

STANDARD: The operator verifies that 1E21-F005 is fully open by observing RED light is ON and GREEN light is OFF.

CUE:

COMMENTS:

SAT _____ UNSAT _____ Comment Number_____

TERMINATING CUE**:**

The Low Pressure Core Spray Pump is running and injecting into the RPV at full flow.

STOP TIME: _____

Note to Examiner: Notify the simulator operator when the JPM is complete so he can shutdown LPCS.

K/A REFERENCE NUMBERS

K/A SYSTEM NUMBER	K/A NUMBER	Importance Rating RO	SRO
209001	A4.11	3.7	3.6

Ability to manually operate and/or monitor System flow in the control room.

JPM NUMBER: 3313.0101 **REVISION: 04**

INITIAL CONDITIONS:

You are the B CRO.
A loss of high pressure injection has caused low Reactor water level.

INITIATING CUE:

You are directed to manually initiate LPCS to inject with maximum attainable flow into the RPV. Report when the task is complete.

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Job Performance Measure

Startup the Control Room Ventilation System (VC) in the High Radiation Mode (alternate path)

JPM Number: 3402.0101

Revision Number: 01

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**T. Coe**	**12/12/03**
	SME or Instructor	**Date**
Review By:	**P. K. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 3402.0101 **REVISION: 01**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Revision Record (Summary)

1. **Revision 00,** Converted from 011288J001, to an alternate path.
2. **Revision 01,** Incorporated NRC comments.

JPM NUMBER: 3402.0101 **REVISION: 01**

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

JPM Title: Startup the Control Room Ventilation System (VC) in the High Radiation Mode

JPM Number: 3402.0101 Revision Number: 01
Task Number and Title: 340201.16

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ■ Perform **Alternate Path / Faulted:** ■ Yes

Time Critical: ❑ Yes

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

References: CPS No. 3402.01 CONTROL ROOM HVAC (VC)

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: _____

Evaluator's Signature:_____ Date: _____

JPM NUMBER: 3402.0101 **REVISION: 01**

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:

Initialize to any suitable IC, ensure a VC train is running in normal mode.
OPEN/verify OPEN outside damper 0VC01YB
Override 5050 and 5052 7M HI RADIATION CONT RM HVAC SYSTEM DIVISION 1 and 2 to the alarm status. Have alarms pending and activate the alarms after the initiating cue has been given.
Insert malfunctions and I/Os to cause:
PR009A and 0RI-VC075 (P801-66B) to indicate 11 mR/hr - 5397
PR009C and 0RI-VC076 (P801-66B) to indicate 4 mR/hr - 2895
PR009B and 0RI-VC175 (P801-67B) to indicate 12 mR/hr - 4290
PR009D and 0RI-VC176 (P801-67B) to indicate 5 mR/hr – 3300
Insert I/Os to prevent depressing both Cont Rm Mu Trn Hi Rad initiation push-buttons with conditions to clear the I/Os when the Sply Air Fltr Dmprs 0VC09YA/10YA/11YA (0VC09YB/10YB/11YB) control switch is in the FILTER position.

TASK STANDARDS:

The VC System is running in the High Radiation Mode with Minimum Outside Air Damper 0VC01YA OPEN. The task has been completed within 20 minutes

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS No. 3402.01, CONTROL ROOM HVAC
CPS No. 5050.06M HI RADIATION CONT RM HAVAC SYS DIVISION 1
CPS N0. 5140.64,MCR AIR INTAKE 1RIX-PR009A, B, C, D

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.
The simulator operator will need to be notified when the cue has been acknowledged so that annunciators 5050-7M and 5052-7M on P801 will alarm.

JPM NUMBER: 3402.0101 **REVISION: 01**

INITIAL CONDITIONS:

Your are the B CRO.
The plant was operating at rated power when a LOCA occurred.
A radioactive release is occurring at this time.

INITIATING CUE:

You have been directed to verify proper operation of control room ventilation.
This is a time critical JPM.

Evaluator Note:
Signal the simulator operator when the cue has been acknowledged so that annunciators 5050-7M and 5052-7M on P801 will alarm.

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

NOTE

Hi Radiation Isolation Logic is 1 out of 2 twice.

A single monitor will initiate the HI RADIATION CONT RM HVAC SYST DIVISION 1(2) annunciator, but will not initiate isolation.

Cause of such an alarm will need to be investigated and appropriate action taken.

Step 8.3.3.1 may be used to initiate operation of VC system in HI RAD mode.

The remainder of procedure should be followed regardless of whether initiation was automatic or manual. ***Refer to ITS LCO 3.3.7.1 for further guidance****.*

Run time with flow through VC make up filter train 0VC09SA(B) and VC supply filter train 0VC07SA(B) shall be tracked per CPS 9094.01, Cumulative Data Report. «LBD-1»

8.3.3 High Radiation Isolation

8.3.3.1	IF THEN	Manual Initiation of a High Radiation Isolation is required, Depress both Cont Rm Mu Trn Hi Rad initiation push-buttons.

Standard Both pushbuttons are depressed, located on 1H13-P801

CUE Respond as RP if is notified for the abnormal radiation conditions

Comments

SAT UNSAT Comment Number

8.3.3.2 Verify Supply Air Trn A(B) un-isolates as follows:
1) 0VC09YA(B), Sply Air Trn A(B) Filt Inlet Dmpr opens.
2) 0VC10YA(B), Sply Air Trn A(B) Filt Byp Dmpr closes.
3) 0VC11YA(B), Sply Air Trn A(B) Filt Outlet Dmpr opens.

Standard: Determines the Supply Air Trn A(B) is still isolated

CUE:

Comments:

SAT UNSAT Comment Number

***8.3.3.2** **IF** **Supply Air Trn A(B) did not unisolate,**
THEN **Place Sply Air Fltr Dmprs 0VC09YA/10YA/11YA (0VC09YB/10YB/11YB) control switch in the FILTER position and repeat 8.3.3.1 and 2.**

Standard: Damper lights for 0VC09YA(B) and 0VC11YA(B) indicate OPEN
Damper light for 0VC10YA(B) indicates CLOSED

CUE:

Comments:

SAT UNSAT Comment Number

***8.3.3.1** **IF** **Manual Initiation of a High Radiation Isolation is required,**
THEN **Depress both Cont Rm Mu Trn Hi Rad initiation push-buttons.**

Standard: Both pushbuttons are depressed, located on 1H13-P801, and associated red indication lights are ON.

CUE:

Comments:

SAT UNSAT Comment Number

8.3.3.3 Verify running/start 0VC05CA(B), Cont Rm HVAC A(B) MU Air Fan.

Standard Red light ON.

CUE

Comments

SAT UNSAT Comment Number

8.3.3.4 Verify the following dampers open:
1) 0VC02YA(B), Cont Rm Trn A(B) MU Air Dmpr.
2) 0VC06YA(B), Cont Rm MU Trn A(B) Outlet Dmpr.
3) Verify 0VC114YA(B), Cont Rm MU Trn A(B) Flow Cont Dmpr modulates.

Standard Damper lights for 0VC02YA(B) and 0VC06YA(B) indicate OPEN and 0VC114YA(B) is modulating.

CUE

Comments

SAT UNSAT Comment Number

8.3.3.6 Verify the following dampers close:
1) 0VC03YA(B), Cont Rm Trn A Min OS Dmpr.
2) 0VC05YA(B), MCR Max Intake & Purge Dmpr.
3) 0VC48YA(B), MCR Max Intake & Purge Dmpr.
4) 0VC49YA(B), MCR Max Intake & Purge Dmpr.
5) 0VC81YA(B), MCR Max Intake & Purge Dmpr.
6) 0VC115YA(B), Cont Rm Trn A Min OS Dmpr.
7) 0VC69Y, MCR Locker Rm Exhaust Dmpr.
8) 0VC70Y, MCR Locker Rm Exhaust Dmpr.
9) 0VC11C, MCR Locker Rm Exhaust Fan is <u>not</u> running

Standard Damper lights for 0VC03YA(B), 0VC05YA(B), 0VC48YA(B), 0VC49YA(B), 0VC81YA(B), 0VC115YA(B), 0VC69Y, and 0VC70Y indicate CLOSED
Fan lights for 0VC11C indicate NOT running.

CUE

Comments

SAT UNSAT Comment Number

8.3.3.7 Cont Rm Trn A(B) Min Air Dmpr 0VC01YA(B) is located on the east(west) side of the plant.
Use the following table to quickly locate monitors and indicators to aid in completion of the remaining steps in section 8.3.3.

	MONITOR	LOCATION	INDICATION	LOCATION
DIV 1:	PR009A	AB 781'W	0RI-VC075	P801-66B
	PR009C	CB 825'E	0RI-VC076	P801-66B
DIV 2:	PR009B	AB 781'W	0RI-VC175	P801-67B
	PR009D	CB 825'E	0RI-VC176	P801-67B

Standard Locate monitors, obtain readings, and determines that higher radiation condition exists on the WEST side.

Comments

SAT UNSAT Comment Number

***8.3.3.8** IF A high radiation condition exists as indicated by OS Air Inlet Rad Mon on P801-66B and 67B,

THEN

1. **Open/verify open the minimum air damper (0VC01YA) with the lowest radiation level**
2. **Shut/verify shut the other minimum air damper.**

Standard Examinee opens 0VC01YA is OPEN and shuts 0VC01YB is SHUT.

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 3402.0101 **REVISION: 01**

TERMINATING CUES:

The VC System is running in the High Radiation Mode with Minimum Outside Air Damper 0VC01YA OPEN.

STOP TIME: _____ **TOTAL TIME:** _____

***Task must be completed within 20 minutes**

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
290003	A4.01	3.2	3.2

Ability to manually operate and/or monitor initiate/reset system in the control room.

JPM NUMBER: 3402.0101 **REVISION: 01**

INITIAL CONDITIONS:

Your are the B CRO.
The plant was operating at rated power when a LOCA occurred.
A radioactive release is occurring at this time.

INITIATING CUE:

You have been directed to verify proper operation of control room ventilation.
This is a time critical JPM.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Parallel DG 1B With Off Site Power

JPM Number: 3506.0105

Revision Number: 03

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**T. Coe**	**12/12/03**
	SME or Instructor	**Date**
Review By:	**P. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 3506.0105 **R/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:
Procedure Rev. _____ Date _____

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Revision Record (Summary)

1. **Revision 00,** This is a new JPM
2. **Revision 01,** Incorporating NRC validation comments
3. **Revision 02,** New procedure revision
4. **Revision 03,** Incorporating NRC comments

JPM NUMBER: 3506.0105 **R/03**

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

JPM Title: Parallel DG 1B With Off Site Power
JPM Number: 3506.0105

Task Number and Title: 350601.05, Complete Control Room Actions to Perform Diesel Generator – Offsite Power Parallel Operation

K/A Number 264000.A4.01 Importance 3.3 / 3.4

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ■ Perform **Alternate Path /Faulted:** ■ Yes

Time Critical: ❑ No

Estimated Time to Complete: 30 minutes **Actual Time Used:** ____ minutes

References: CPS 9080.02, DIESEL GENERATOR 1B OPERABILITY - MANUAL AND QUICK START OPERABILITY, Revision 46a, Section 8.2.15
CPS 3506.01C002, DIESEL GENERATOR START LOG

JPM NUMBER: 3506.0105 **R/03**

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: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: 3506.0105 **R/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.

SIMULATOR SET-UP CONDITIONS:

Initialize to the Temporary IC established for this JPM, OR,
Initialize to any suitable IC with DG in standby, and:

- Start Diesel Generator 1B
- Load lesson plan to fail the voltage regulator switch to raise, but work in the lower direction, when the the DG load reaches 3000 kw.
- Synch Switch is off with key removed
- Mark up a copy of CPS 9080.01 to Step 8.2.13 for use by the examinee in performing this JPM.
- Fill out a CPS 3506.01C002, DIESEL GENERATOR START LOG
- Turn on recorder power to allow the SVC Voltmeter

TASK STANDARDS:

Diesel Generator 1B output breaker has been reopened.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS No. 9080.02, DIESEL GENERATOR 1B OPERABILITY - MANUAL AND QUICK START OPERABILITY, Revision 46a, Section 8.2.15
CPS 3506.01C002, DIESEL GENERATOR START LOG

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

You are the B CRO.
The plant is in a normal power lineup.
DG 1B was started per CPS 9080.02; Section 8.2 and steps are completed through Step 8.2.14.

INITIATING CUE:

Parallel Diesel Generator 1B with off-site power for a one hour run, begining at Step 8.2.15.
Report when task is completed.

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

***8.2.15.1**	**Place DG 1B Output BKR SYNC switch to ON position.**
Standard	Inserts a key and turns the Output BKR SYNC switch to ON
CUE	
Comments	SAT UNSAT Comment Number

***8.2.15.2**	**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	
Comments	SAT UNSAT Comment Number

JPM NUMBER: 3506.0105 **R/03**

***8.2.15.3**	**Adjust DG 1A(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., 1/2 – 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	
Comments	SAT UNSAT Comment Number

8.2.15.4	Start GETARS recording.
Standard	Examinee requests that GETARS be started.
CUE	GETARS is running/recording.
Comments	SAT UNSAT Comment Number

JPM NUMBER: 3506.0105 **R/03**

***8.2.15.5.1**	**WHEN the synchroscope's pointer nears the vertical (12 o'clock) position and the synchronizing lamps go dark, THEN** **Close DG 1B Output Bkr, 1AP09EH.**
Standard	When synchroscope pointer nears 12 o'clock, operator takes handswitch for DG 1B output breaker to CLOSE and observes RED light ON.
CUE	
Comments	SAT UNSAT Comment Number

***8.2.15.5.2**	**Promptly load DG 1B to at least 100 - 200 KW.**
Standard	Examinee immediately loads diesel to at least >100 KW by taking governor control switch to RAISE.
CUE	
Comments	SAT UNSAT Comment Number

***8.2.15.5.3**	**Verify VARs between -500 and +500 KVAR; adjust as necessary.**
Standard	Examinee adjusts VARs as necessary with the voltage regulator.
CUE	
Comments	SAT UNSAT Comment Number

***8.2.15.6**	**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 loads the DG by taking governor control switch to RAISE.
CUE	
Comments	When the DG reaches 3000 KW the voltage regulator will fail in the RAISE position. SAT UNSAT Comment Number

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.*

«CM-6»

	Notify SRO of voltage regulator problem
Standard	Examinee notifies SRO of voltage regulator problem.
CUE	Ask Examinee for suggested action. If ann. 5007-5m 4Kv Bus volts Hi alarm activates, then announce it as the A CRO.
Comments	Examinee may go directly to 8.2.16.4 and trip the DG
	SAT UNSAT Comment Number
8.2.16.2	Lower DG 1B load to 100 - 200 KW
Standard	Examinee takes handswitch for DG 1B governor control switch to LOWER
CUE	
Comments	
	SAT UNSAT Comment Number
8.2.16.3	Adjust DG 1A(1B) VARs to ≈ 0 KVAR
Standard	Examinee takes handswitch for DG 1B voltage regulator to LOWER
CUE	
Comments	DG amps will fail high
	SAT UNSAT Comment Number

JPM NUMBER: 3506.0105 **R/03**

***8.2.16.4**	**Open DG 1B Output Bkr, 1AP09EH.**
Standard	Examinee takes 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	
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 reopened.

Once the DG 1B output breaker is reopened terminate the JPM.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
264000	A2.01	3.5	3.6

Ability to (a) predict the impacts of Parallel operation of emergency generator on the EMERGENCY GENERATORS (DIESEL/JET) ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations.

JPM NUMBER: 3506.0105 **R/03**

INITIAL CONDITIONS:

You are the B CRO.
The plant is in a normal power lineup.
DG 1B was started per CPS 9080.02; Section 8.2 and steps are completed through Step 8.2.14.

INITIATING CUE:

Parallel Diesel Generator 1B with off-site power for a one hour run, begining at Step 8.2.15.

Report when task is completed.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Turbine On Line Tests

JPM Number: 3812.0101

Revision Number: 01

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**M. Griffin**	**10/17/03**
	SME or Instructor	**Date**
Review By:	**P. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 3812.0101 **REVISION: 01**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

JPM NUMBER: 3812.0101 **REVISION: 01**

Revision Record (Summary)

1. **Revision 00,** This is a new JPM
2. **Revision 01,** Incorporate NRC comments, revalidation is not required.

JPM NUMBER: 3812.0101 **REVISION: 01**

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

JPM Title/Number: 3812.0101, Turbine On Line Tests
Revision Number: 01
Task Number and Title: 381201.01, Complete Control Room actions to perform the Turbine Electrical Trip Test

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ No

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

References:

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: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: 3812.0101 **REVISION: 01**

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:

Any power level with the Turbine on line
Override the Backup Overspeed Trip Test Reset Push-Button after the first channel is reset.

TASK STANDARDS:

The Turbine is on line at the completion of the task.

Note: If the procedure is not stopped when the fault occurs, a Turbine trip and Reactor Scram will occur.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 3812.01, Turbine On Line Tests

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS

You are the B CRO.
The plant is in a normal full power lineup.

INITIATING CUE:

Perform sections 8.1 through 8.4 of CPS 3812.01, Turbine On Line Tests. All prerequisites are complete.

START TIME: _____

JPM NUMBER: 3812.0101 **REVISION: 01**

==========

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

Hand the procedure to the examinee.

8.1.1 Verify applicable prerequisites are met.

Standard

CUE

Comments Given in the initiating cue.

SAT UNSAT Comment Number

8.1.2 Observe the following:
NORMAL light is ON
RESET light is ON
Remaining lights in ELECTRICAL TRIP TEST Group are OFF

Standard

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 3812.0101 **REVISION: 01**

NOTE

The following Alarms and indications should be expected when the next steps are performed:

Annunciator 1H13-P680:
5007-1C Trouble EHC Syst

Status Lights on P680:
EHC STATUS - Electrical Malfunction
EHC STATUS – System Fault

Status Lights on 1PA06J:
Electrical Malfunction
First Hit Detection
Elect Trip Solenoid Trip
Hit 1

***8.1.3**	**Depress and hold START TEST push-button and observe the following:** **NORMAL light goes OFF** **LOCKED OUT light comes ON**	
Standard	**NORMAL light goes OFF** **LOCKED OUT light comes ON**	
CUE		
Comments		
	SAT UNSAT Comment Number	

***8.1.4**	**Release START TEST push-button and observe the following sequence:** **RESET light goes OFF, and** **TRIPPED light comes ON** **TRIPPED light goes OFF, and RESET light comes ON** **LOCKED OUT light goes OFF and NORMAL light comes ON**
Standard	**RESET light goes OFF, and** **TRIPPED light comes ON** **TRIPPED light goes OFF, and RESET light comes ON** **LOCKED OUT light goes OFF and NORMAL light comes ON**
CUE	
Comments	
	SAT UNSAT Comment Number

8.1.5	Reset all alarms that were caused by section 8.1 at the First Hit panel 1PA06J using guidance in CPS 3105.01 section 8.3.3.
Standard	Directs local operator to reset First Hit panel.
CUE	Note for simulator operator: Status lights on 1PA06J • Electrical Malfunction • First Hit Detection • Elect Trip Solenoid Trip • Hit 1
Comments	
	SAT UNSAT Comment Number

8.2.1	Verify applicable prerequisites are met.
Standard	
CUE	
Comments	Given in the initiating cue.
	SAT UNSAT Comment Number

***8.2.2**	**Depress and hold the No. 1 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button.**
Standard	**Push-button is held depressed**
CUE	
Comments	Given in the initiating cue.
	SAT UNSAT Comment Number

8.2.3 Observe the associated 125 VOLT DC and 24 VOLT DC lights come ON. (Upper and lower halves of push-button)

Standard

CUE

Comments

SAT UNSAT Comment Number

***8.2.4 Release the No. 1 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button. The two lights should remain ON.**

Standard The two lights remain ON

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 3812.0101 **REVISION: 01**

***8.2.5**	**Depress the RESET push-button and observe the associated 125 VOLT DC & 24 VOLT DC lights go OFF.**
Standard	**The two lights go off**
CUE	
Comments	
	SAT UNSAT Comment Number

***8.2.2**	**Depress and hold the No. 2 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button.**
Standard	**Push-button is held depressed**
CUE	
Comments	Given in the initiating cue.
	SAT UNSAT Comment Number

8.2.3 Observe the associated 125 VOLT DC and 24 VOLT DC lights come ON. (Upper and lower halves of push-button)

Standard

CUE

Comments

SAT UNSAT Comment Number

***8.2.4** **Release the No. 2 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button. The two lights should remain ON.**

Standard **The two lights remain ON**

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 3812.0101 **REVISION: 01**

CAUTION

Do not perform any further BOST tests unless the circuit is reset, because a turbine trip will occur.

8.2.5	Depress the RESET push-button and observe the associated 125 VOLT DC & 24 VOLT DC lights go OFF.
Standard	The RESET push-button Depressed
CUE	
Comments	The lights will remain on. (does not reset)
	SAT UNSAT Comment Number

*	**Stop the test to prevent a turbine trip and inform the CRS.**
Standard	**The test is stopped**
CUE	
Comments	Further testing would cause a turbine trip and reactor scram.
	SAT UNSAT Comment Number

STOP TIME: _____

JPM NUMBER: 3812.0101 **REVISION: 01**

TERMINATING CUES:

The test is stopped.

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
241000	A4.19	3.5	3.4

Ability to manually operate and/or monitor Turbine panel controls in the control room.

JPM NUMBER: 3812.0101 **REVISION: 01**

INITIAL CONDITIONS

You are the B CRO.
The plant is in a normal full power lineup.

INITIATING CUE:

Perform sections 8.1 through 8.4 of CPS 3812.01, Turbine On Line Tests. All prerequisites are complete.

Exelon Nuclear

CLINTON POWER STATION

Job Performance Measure

Defeating RPS Logic Trips

JPM Number: 441000C012

Revision Number: 02

Date: 12/08/03

Developed By:	**Tom Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**P Ryan**	**11/18/03**
	SME or Instructor	**Date**
Review By:	**P Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 441000C012 **REVISION: 02**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

JPM NUMBER: 441000C012 **REVISION: 02**

Revision Record (Summary)

1. **Revision 01** New format and enhancements for plant safety.

2. **Revision 02** Incorporated NRC comments, revalidation is not required.

CLINTON POWER STATION
SYSTEM JPM

JPM NUMBER: 441000C012 **REVISION: 02**

Operator's Name: _____

Job Title: ❑ RO ■ SRO

JPM Title: Defeating RPS Logic Trips

Task Number and Title: 441000.01, Complete Control Room actions to Defeat System Interlocks per 4410.00 Checklists.

Suggested Testing Environment: Control Room

Actual Testing Environment: ■ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ■ **Faulted:** ■ No
Alternate Path: ❑ No

Time Critical: ❑ No

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

References: CPS No. 4410.00C012, Defeating ATWS Interlocks

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:_____

Evaluator's Signature: _____ Date:_____

JPM NUMBER: 441000C012 **REVISION: 02**

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:

None

TASK STANDARDS:

All Div 1-4 RPS automatic scram signals are bypassed.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

Panel keys
Flashlight
NSPS Backplane Jumpers
Copy of CPS No. 4410.00C012, Defeating ATWS Interlocks

PROCEDURAL/REFERENCES:

CPS No. 4410.00C012, Defeating ATWS Interlocks

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps. Panel 1H13-P839 does not have a cover on the back plane and can be used to locate the back plane pins. If panel 1H13-P839 cannot be opened then attachment #1 & 2 can be used to allow the operator to show the Backplane pin locations.

INITIAL CONDITIONS:

An ATWS has occurred and RPS must be reset to insert control rods.

INITIATING CUE:

The CRS directs you to defeat the RPS logic trips per CPS No. 4410.00C012, Section 3.2.

START TIME: _____

JPM NUMBER: 441000C012 **REVISION: 02**

==========

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

JPM TITLE: Defeating RPS Logic Trips

***1 Obtain the EOP Tool Bag**

STANDARD: Operator obtains the EOP Tool Bag located in the EOP supply Cabinet

CUE:

COMMENTS:

***2 Obtain Personel Protective Equipment**

STANDARD: Operator obtains:

- Safety Glasses
- Clothing - Class 1: Any Natural fiber clothing
  - ☞ Class 2 coveralls pre-staged in EOP Emergency Supply Cabinet.
- Insulated Tools
- Gloves/Liners - **OPTIONAL** to user

CUE:

COMMENTS: Class 1 or Class 2 protective clothing may be used.

WARNING

Live electrical contacts in panels.

Breaker contacts may be energized.

*3.2.a) **At backpanel 1H13-P661, Bay B, Backplane cover A11, P1 card 16, install backplane jumper first on pin 22, and last, on pin 3.**

STANDARD: Operator locates panel 1H13-P661, Bay B, backplane cover A11, P1 card 16, and simulates placing jumper **FIRST** on pin 22 and **LAST** on pin 3.

CUE: Jumper installed.

COMMENTS: Remind the operator the Backplane cover shall not be removed and that he should not physically touch any component located inside the cabinet.

SAT _____ UNSAT _____

---

*3.2.b **At backpanel 1H13-P662, Bay C, Backplane cover A11, P1 card 16, install backplane jumper first on pin 22, and last, on pin 3.**

STANDARD: Operator locates panel 1H13-P662, Bay C, backplane cover A11, P1 card 16 and simulates placing jumper **FIRST** on pin 22 and **LAST** on pin 3.

CUE: Jumper installed.

COMMENTS: Remind the operator the Backplane cover shall not be removed and that he should not physically touch any component located inside the cabinet.

SAT _____ UNSAT _____

---

*3.2.c **At backpanel 1H13-P663, Bay B, Backplane cover A11, P1 card 16, install backplane jumper first on pin 22, and last, on pin 3.**

STANDARD: Operator locates panel 1H13-P663, Bay B, backplane cover A11, P1 card 16, and simulates placing jumper **FIRST** on pin 22 and **LAST** on pin 3.

CUE: Jumper installed.

COMMENTS: Remind the operator the Backplane cover shall not be removed and that he should not physically touch any component located inside the cabinet.

SAT _____ UNSAT _____

---

*3.2.d **At backpanel 1H13-P664, Bay C, Backplane cover A11, P1 card 16, install backplane jumper first on pin 22, and last, on pin 3.**

STANDARD: Operator locates panel 1H13-P664, Bay C, backplane cover A11, P1 card 16, and simulates placing jumper **FIRST** on pin 22 and **LAST** on pin 3

CUE: Jumper installed.

COMMENTS: Remind the operator the Backplane cover shall not be removed and that he should not physically touch any component located inside the cabinet.

SAT _____ UNSAT _____

JPM NUMBER: 441000C012 **REVISION: 02**

TERMINATING CUES:

Divisions 1 through 4 RPS automatic scram signals are bypassed.

STOP TIME: _____

JPM NUMBER: 441000C012 **REVISION: 02**

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
212000	A4.14	3.8	3.8

Ability to manually reset system following system activation in the control room

JPM NUMBER: 441000C012 **REVISION: 02**

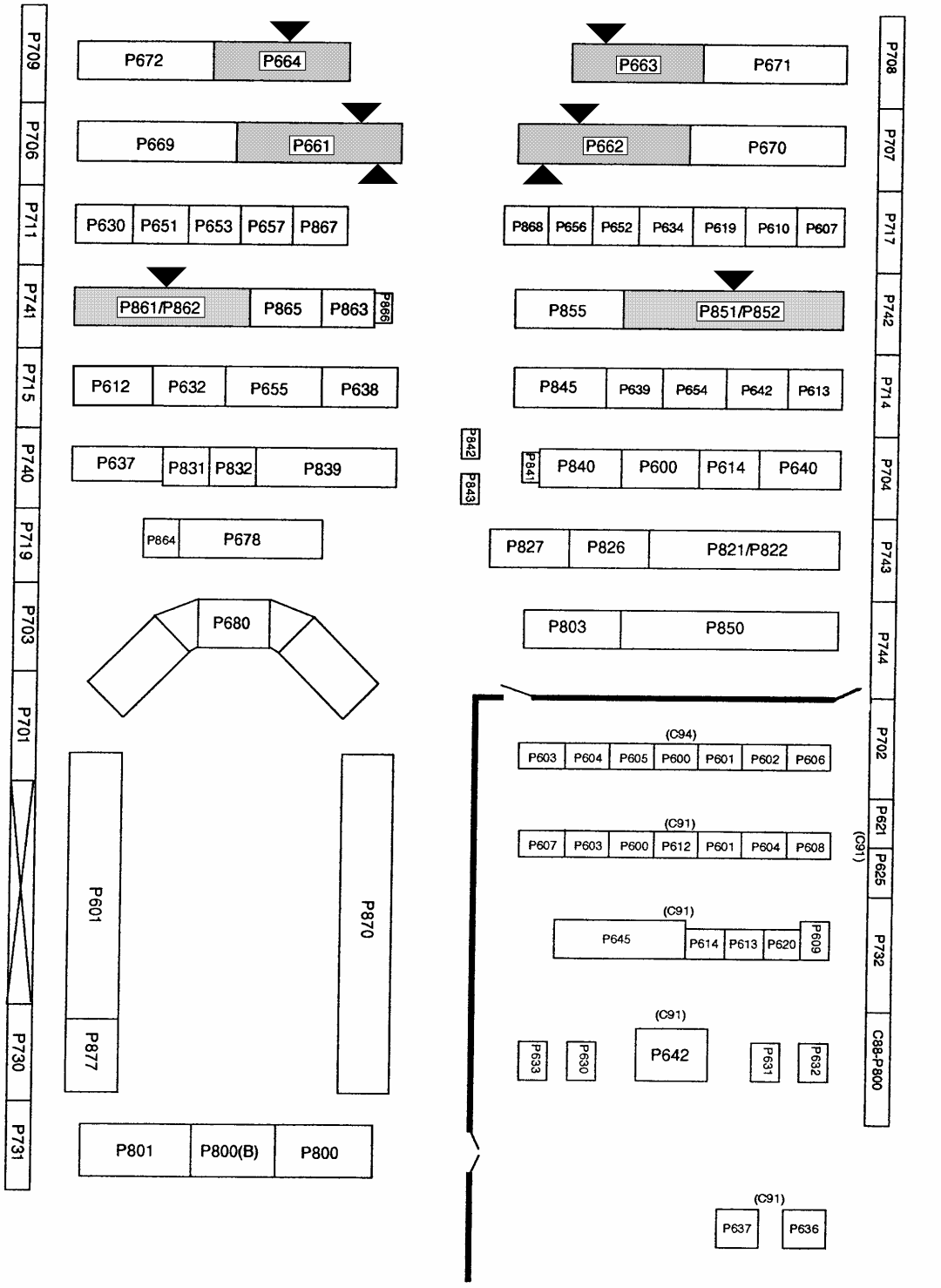
INITIAL CONDITIONS:

An ATWS has occurred and RPS must be reset to insert control rods.

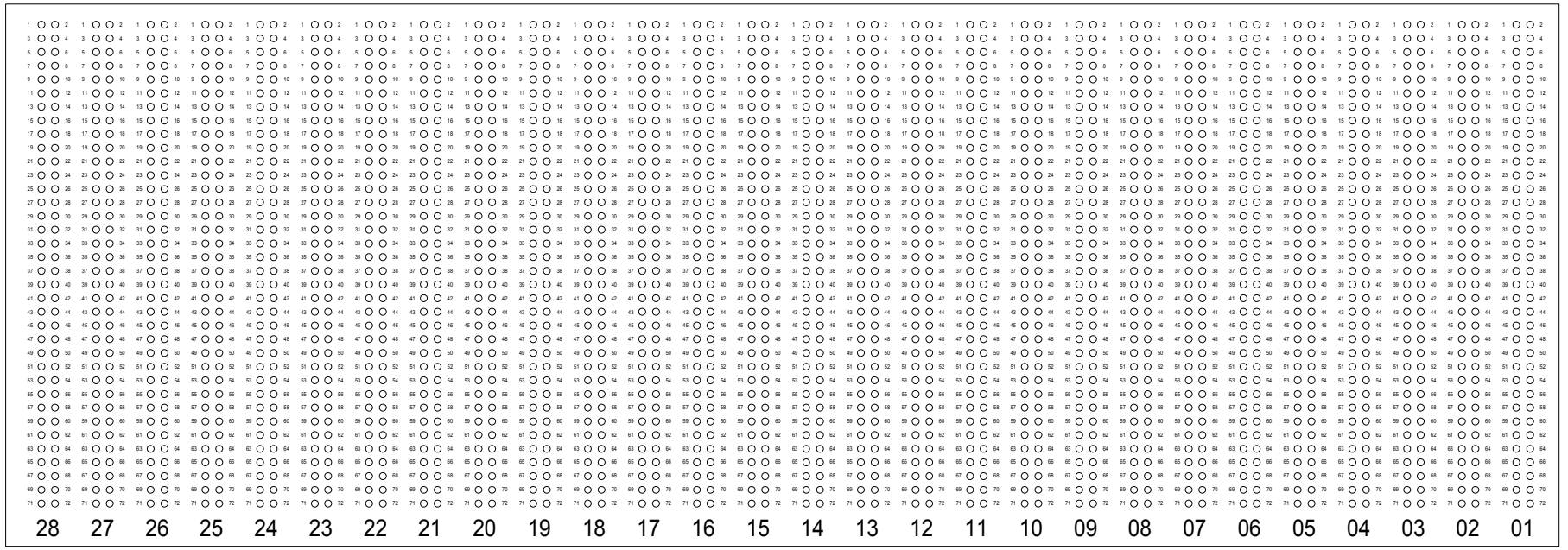
INITIATING CUE:

The CRS directs you to defeat the RPS logic trips per CPS No. 4410.00C012, Section 3.2.

JPM NUMBER: 441000C012 **REVISION: 02**



Attachment #1



Attachment #2

1	○	○	2
3	○	○	4
5	○	○	6
7	○	○	8
9	○	○	10
11	○	○	12
13	○	○	14
15	○	○	16
17	○	○	18
19	○	○	20
21	○	○	22
23	○	○	24
25	○	○	26
27	○	○	28
29	○	○	30
31	○	○	32
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37	○	○	38
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43	○	○	44
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49	○	○	50
51	○	○	52
53	○	○	54
55	○	○	56
57	○	○	58
59	○	○	60
61	○	○	62
63	○	○	64
65	○	○	66
67	○	○	68
69	○	○	70
71	○	○	72

Exelon Nuclear

CLINTON POWER STATION

Job Performance Measure

Throttling ECCS Injection Flow- HPCS

JPM Number: 4411.0401

Revision Number: 03

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**M. Griffin**	**10/17/03**
	SME or Instructor	**Date**
Review By:	**P. K. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 4411.0401 **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:
Procedure Rev. _____ Date _____

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

JPM NUMBER: 4411.0401 **REVISION:** **03**

Revision Record (Summary)

1. **Revision 0,** JPM is new.
2. **Revision 1,** Corrected typos
3. **Revision 2,** Revised to simulate the entire JPM
4. **Revision 3,** Incorporated NRC comments, revalidation is not required.

JPM NUMBER: 4411.0401 **REVISION: 03**

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

JPM Title:Throttling ECCS Injection Flow- HPCS
JPM Number: 4411.0401 Revision Number: 03
Task Number and Title: 045200C509/Bypass an Emergency Core Cooling System Injection Valve Seal-in to Throttle ECCS Flows
Suggested Testing Environment: Plant

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

Testing Method: ■ Simulate **Faulted:** ❑ No
❑ Perform **Alternate Path:** ❑ No

Time Critical: ❑ No

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

References: CPS No. 4411.04, THROTTLING ECCS FLOW

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:_____

Evaluator's Signature: _____ Date:_____

JPM NUMBER: 4411.0401 **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.

SIMULATOR SET-UP CONDITIONS:

Not applicable for simulator.

TASK STANDARDS:

HPCS PUMP DISCHARGE VALVE, 1E22-F004, OPEN and CLOSE SEAL-INs defeated.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

EOP Tool Bag (1)
Wire Cutters
Long Nose Pliers
High Voltage Electrical Safety Gloves

PROCEDURAL/REFERENCES:

CPS No. 4411.04, THROTTLING ECCS FLOW

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

A LOCA has occurred and the HPCS Injection valve needs to be used to control RPV level.

INITIATING CUE:

Defeat the open and close seal in circuits for 1E22-F004, HPCS PUMP DISCHARGE VALVE, by performing CPS 4411.04, THROTTLING ECCS FLOW.

START TIME: _____

JPM NUMBER: 4411.0401 **REVISION: 03**

==========

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 4411.04, THROTTLING ECCS FLOW

* **Locates the storage facility for the procedure and tools**

STANDARD: Locates EOP locker.

CUE: EOP Locker – Have examinee show location for procedure and tools, they are together in the same file. Don't allow the file to be disturbed.

COMMENTS: locating another set of tools to complete the task is acceptable, but not the practice.

SAT _____ UNSAT _____Comment Number_____

***2.2** **(Local)** **For each ECCS injection valve specified, defeat the seal-in logic as follows:**

a) Place breaker in OFF.

STANDARD: Operator locates ESF Div 3 HPCS MCC, 1E22-S002, Breaker 2E and simulates placing the breaker in the OFF position.

CUE: Breaker is OFF.

COMMENTS:

SAT _____ UNSAT _____Comment Number_____

***2.2** **b)** **Open breaker front and side doors as necessary to access terminal boards.**

STANDARD: Operator simulates opening the front door and accessing the terminal boards.

CUE: The front door is open.

COMMENTS:

SAT _____ UNSAT _____ Comment Number_____

2.2 c) CUT specified jumpers near each terminal lug, and remove the excess wire.

1E22-F004: HPCS PUMP DISCHARGE VALVE

***2.2.2** At ESF Div 3 HPCS MCC, 1E22-S002, Breaker 2E, CB 781', Div 3 Switchgear Room,

a) **Cut out either lead on terminal 30.**

STANDARD: Operator simulates locating the correct terminals and cutting the lead.

CUE: lead is cut.

COMMENTS: Have the operator point out the terminal on the attached pictures.

SAT _____ UNSAT _____ Comment Number_____

***2.2.2** **b)** **Cut either lead on terminal 4.**

STANDARD: Operator simulates locating the correct terminals and cutting the lead.

CUE: Lead is cut.

COMMENTS: Have the operator point out the terminal on the attached pictures.

SAT _____ UNSAT _____ Comment Number_____

d) Shut breaker doors.

***2.2** **e)** **Place breaker in ON.**

STANDARD: Operator simulates shutting the breaker cubicle doors and placing the breaker in the ON position.

CUE: Breaker is ON

COMMENTS: Placing breaker to ON is the only critical part.

SAT _____ UNSAT _____ Comment Number_____

JPM NUMBER: 4411.0401 **REVISION: 03**

2.2 f) Notify MCR that valve may now be throttled.

STANDARD: Operator simulates notifying the Main Control Room that the 1E22-F004 valve may now be throttled.

CUE: Acknowledge that the HPCS Pump Discharge Valve may now be throttled.

COMMENTS:

SAT _____ UNSAT _____ Comment Number_____

TERMINATING CUES:

The HPCS PUMP DISCHARGE VALVE, 1E22-F004, open and close seal-ins are defeated.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
295031	EA1.04	4.3	4.2

Ability to operate and/or monitor High pressure core spray as they apply to REACTOR LOW WATER LEVEL.

INITIAL CONDITIONS:

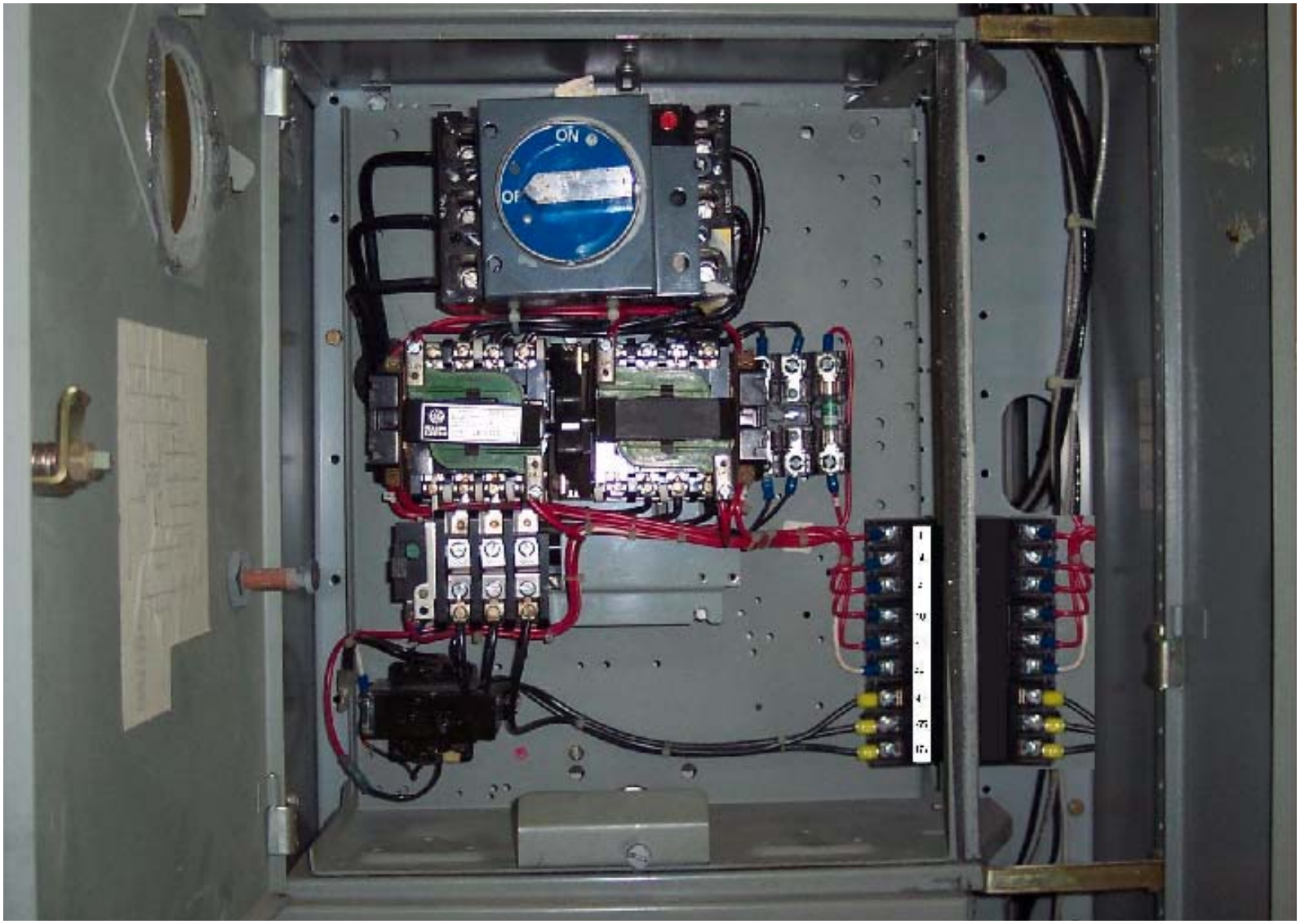
A LOCA has occurred and the HPCS Injection valve needs to be used to control RPV level.

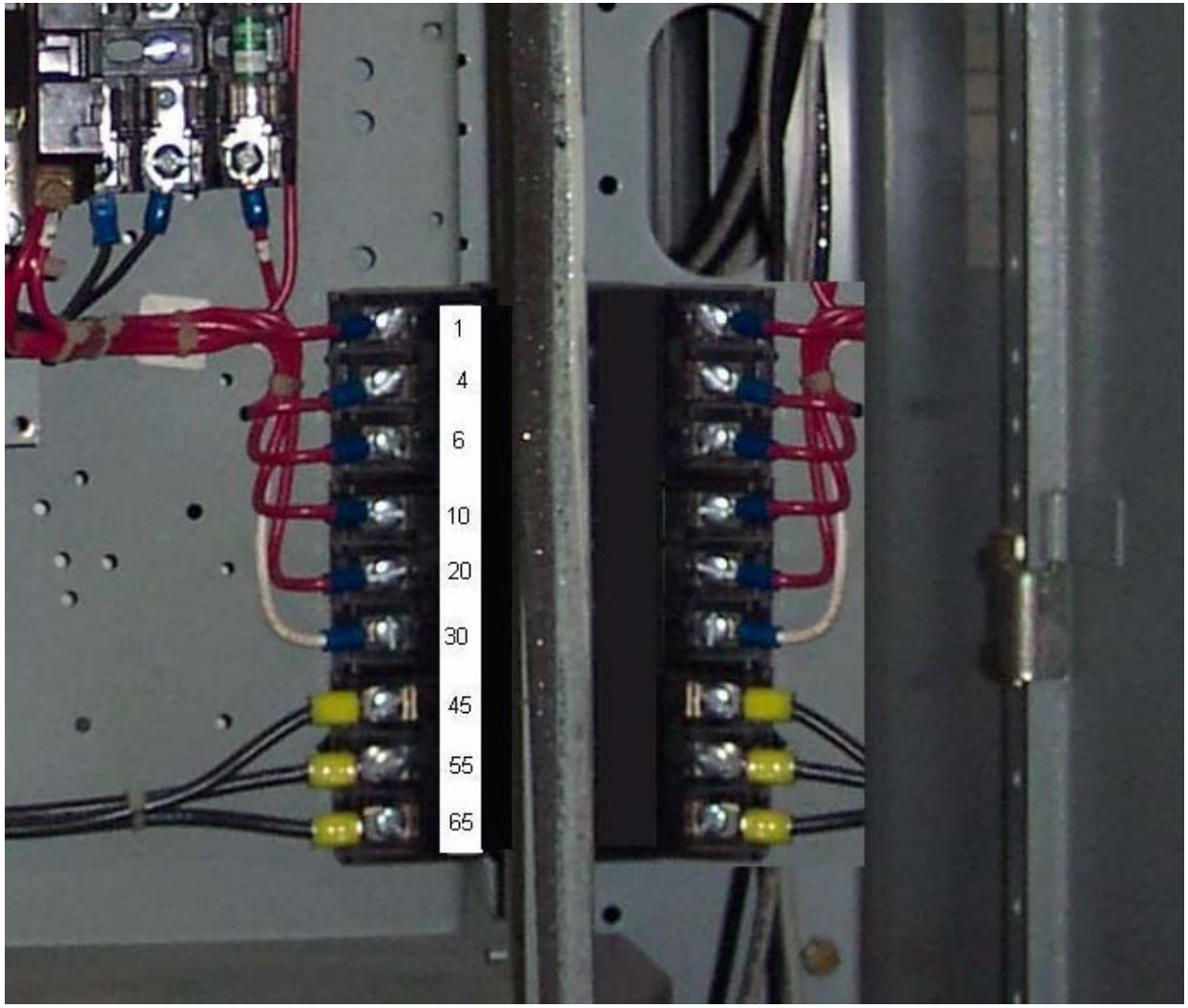
INITIATING CUE:

Defeat the open and close seal in circuits for 1E22-F004, HPCS PUMP DISCHARGE VALVE, by performing CPS 4411.04, THROTTLING ECCS FLOW.

CAUTION

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


ON
OF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Exelon Nuclear

CLINTON POWER STATION

Job Performance Measure

Perform Containment Hydrogen Purge per 4411.06

JPM Number: 4411.0607

Revision Number: 01

Date: 12/08/2003

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**M. Griffin**	**10/17/03**
	SME or Instructor	**Date**
Review By:	**P. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 4411.0607 **REVISION: 01**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Revision Record (Summary)

1. **Revision 00** New JPM
2. **Revision 01** Incorporate NRC comments, revalidation is not required.

JPM NUMBER: 4411.0607 **REVISION: 01**

Operator's Name: _____

Job Title: ❑ NLO ❑ RO ❑ SRO ❑ STA ❑

JPM Title: Perform Containment Hydrogen Purge per 4411.06

JPM Number: 4411.0607 Revision Number: 01

Task Number and Title: 441106.07, Complete Control Room actions to perform CNMT HYDROGEN PURGE

Suggested Testing Environment: Simulator

Actual Testing Environment: ■Simulator❑ Plant❑ Control Room

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

Time Critical: ❑ No

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

References: CPS No. 4411.06

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: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: 4411.0607 **REVISION: 01**

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:

1. Initialize to any IC that will allow operation of the Standby Gas Treatment System.
2. Start both Hydrogen Mixing Compressors.
3. Verify that Containment pressure is less than 2.6 psig.
4. Remove tags from valves 1VR002A, 1VR002B, 1VQ006A, and 1VQ006B.
5. Override the control switch for 1VG01YA to prevent the damper from opening.
6. Shutdown CCP.
7. Start the Hydrogen Igniters.

TASK STANDARDS:

Containment Hydrogen Purge is initiated in accordance with CPS No. 4411.06, EMERGENCY CONTAINMENT VENTING, PURGING, AND VACUUM RELIEF.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL REFERENCES:

CPS No. 4411.06, EMERGENCY CONTAINMENT VENTING, PURGING, AND VACUUM RELIEF

JPM NUMBER: 4411.0607 **REVISION: 01**

EVALUATOR INSTRUCTIONS:

Amplifying cues may be provided within the JPM steps.

INITIAL CONDITIONS:

You are the B CRO.
A large break LOCA occurred several hours ago.
Primary Containment hydrogen concentration has risen to 1%.

INITIATING CUE:

You are directed to vent and purge the Primary Containment using CPS No. 4411.06, EMERGENCY CONTAINMENT VENTING, PURGING, AND VACUUM RELIEF, Section 2.8, Containment Hydrogen Purge.
No other sections of CPS No. 4411.06 have been performed.
The necessary clearance tags have been emergency released.

VG Train A is the preferred train

START TIME:_____

==========

PERFORMANCE INFORMATION

Critical steps are denoted with an asterisk (*) to the left of the step number and appear in **BOLD** 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 this JPM.

==========

PERFORMANCE STEPS

2.8.1 VERIFY CNMT PRESSURE < 2.6 PSID BY HI CNMT PRESS WHITE INDICATING LIGHT (ABOVE 1VG01YA/B P801 SWITCH) BEING OFF.

STANDARD: HI CNMT PRESS white light OFF

COMMENTS:
1. Examinee should also verify that Containment and Drywell temperatures are less than 212°F per the CAUTION at beginning of section.
2. Hydrogen concentration is 1% as stated in Initiating Cue.

SAT _____ UNSAT _____Comments Number

2.8.2 IF Section 2.2, Vent Using Hydrogen Purge Supply Path was performed,

THEN Reinstall relays.

STANDARD: Recall from initiating cue that section 2.2 was not performed.

COMMENTS:

SAT _____ UNSAT _____Comments Number

***2.8.3** **PLACE CONTROL SWITCHES FOR BOTH 1VG02YA & B, SGTS TRN A(B) FUEL BLDG ISOL DMPRS TO THE CLOSE POSITION.**

STANDARD: Key lock switches placed/verified in CLOSE position and Green Lights ON.

COMMENTS: 1VG02YA(B) will indicate shut with control switch in AUTO, switch must be taken to CLOSE to satisfy conditions for the Flowpath.

SAT _____ UNSAT _____Comments Number

2.8.4 Verify following dampers shut:

a) 1VG02YA & B, SGTS Trn A(B) Fuel Bldg Isol Dmprs.
b) 1VG04YA & B, SGTS Trn A(B) Pmp Rms Suct Dmprs.
c) 1VG05YA & B, SGTS Trn A(B) Fuel Bldg Suct Dmprs.
d) 1VG06YA & B, SGTS Trn A(B) ECCS Rms Suct Dmprs.

STANDARD: Green lights ON for 1VG02YA & B, 1VG04YA & B, 1VG05YA & B, and 1VG06YA & B.

COMMENTS:

SAT _____ UNSAT _____Comments Number

*2.8.5 **OPEN BOTH 1VQ006A AND B, CNMT BLDG EXH OUTBD (INBD) ISOL BYP VLVS**

STANDARD: Red lights ON for 1VQ006A and 1VQ006B

COMMENTS:

SAT _____ UNSAT _____Comments Number

***2.8.6 START SGTS TRN A EXH FAN, 0VG02CA.**

STANDARD: Red light ON for 0VG02CA.

COMMENTS: OVG02CA will not have a flowpath until the next step is performed.

SAT _____ UNSAT _____Comments Number

2.8.7 PLACE CONTROL SWITCH FOR 1VG01YA, SGTS TRN A DW PRG ISOL DMPR TO PURGE.

STANDARD: Determines that 1VG01YA did not open

COMMENTS: If asked as CRS for directions: What would you recommend?

SAT _____ UNSAT _____Comments Number

***** **STOP SGTS TRN A EXH FAN, 0VG02CA.**

STANDARD: Green light ON for 0VG02CA.

COMMENTS: If the fan is run long enough, the "Low Flow" alarm will come in. The ARP actions are:

1. Verify running or start SGTS Trn B Exh Fan, 0VG02CB.
2. Shutdown VG Train A per CPS 3319.01, Standby Gas Treatment (VG).

SAT _____ UNSAT _____Comments Number

***2.8.6** **START SGTS TRN B EXH FAN, 0VG02CB.**

STANDARD: **Red light ON for 0VG02CB.**

COMMENTS: OVG02CB will not have a flowpath until the next step is performed.

SAT _____ UNSAT _____Comments Number

***2.8.7** **PLACE CONTROL SWITCH FOR 1VG01YB, SGTS TRN B DW PRG ISOL DMPR TO PURGE.**

STANDARD: Red light ON for 1VG01YB

COMMENTS: If the "Low Flow" alarm comes in on B, direct examinee to "Continue with the procedure, if we have flow."

Note: Under these conditions flow will be 400 – 500 SCFM and the "Low Flow" alarm will come in.

SAT _____ UNSAT _____Comments Number

2.8.8 Start both Hydrogen Mixing Units per CPS No. 3316.01, CONTAINMENT COMBUSTIBLE GAS CONTROL (HG).

STANDARD: Verifies that both Hydrogen Mixing Units are running.

COMMENTS: Mixing compressors were started as part of initial setup. CPS 3316.01 refers operation of mixing compressors to CPS No. 4411.11, EOP HYDROGEN CONTROL SUPPORT ACTIONS.

SAT _____ UNSAT _____Comments Number_

*** 2.8.9** **WHEN** **CNMT PRESSURE IS APPROXIMATELY 0 PSIG**

THEN **OPEN BOTH 1VR002A AND B, CNMT BLDG SPLY OUTBD (INBD) ISOL BYP VLVS**

STANDARD: Red lights ON for 1VR002A and 1VR002B

COMMENTS: CUE: If containment pressure is > 0 psig then inform the examinee that pressure is approximately 0 psig.

STOP TIME:_____

SAT _____ UNSAT _____Comments Number

JPM NUMBER: 4411.0607 **REVISION: 01**

TERMINATING CUES:

Containment Hydrogen Purge has been initiated.

K/A REFERENCE NUMBERS

K/A SYSTEM NUMBER	K/A NUMBER	IMPORTANCE RATING RO	SRO
223001	A 2.04	3.7	3.8

Ability to (a) predict the impacts of High containment/drywell hydrogen concentration on the PRIMARY CONTAINMENT SYSTEM AND AUXILIARIES ; and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations.

JPM NUMBER: 4411.0607 **REVISION: 01**

INITIAL CONDITIONS:

You are the B CRO.
A large break LOCA occurred several hours ago.
Primary Containment hydrogen concentration has risen to 1%.

INITIATING CUE:

You are directed to vent and purge the Primary Containment using CPS No. 4411.06, EMERGENCY CONTAINMENT VENTING, PURGING, AND VACUUM RELIEF, Section 2.8, Containment Hydrogen Purge.
No other sections of CPS No. 4411.06 have been performed.
The necessary clearance tags have been emergency released.

VG Train A is the preferred train

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Scram Control Rod 32-13 By Venting The Control Rod Drive Hydraulics (CRDH) Withdrawal Lines

JPM Number: 4411.0801

Revision Number: 03

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**B. Alvey**	**10/16/03**
	SME or Instructor	**Date**
Review By:	**P. K. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 4411.0801 **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:
Procedure Rev. _____ Date _____

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

JPM NUMBER: 4411.0801 **REVISION: 03**

Revision Record (Summary)

1. **Revision 01,** Converted JPM 45200J03 to new format
2. **Revision 02,** Changed control rod to 32-13 to reduce rad dose during JPM.
3. **Revision 03,** Incorporate NRC comments, revalidation is not required.

JPM NUMBER: 4411.0801 **REVISION: 03**

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

JPM Title/Number: 4411.0801, Scram Control Rod 32-13 By Venting The Control Rod Drive Hydraulics (CRDH) Withdrawal Lines
Revision Number: 03
Task Number and Title: 441108.07, Complete in plant actions to perform Venting CRD Withdrawal Lines method of Alternate Rod Insertion.

Suggested Testing Environment: Plant

Actual Testing Environment: ■ Simulator ❑ Plant

Testing Method: ❑ Simulate ■ Perform **Faulted:** ❑ No **Alternate Path:** ❑ No

Time Critical: ❑ No

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

References:

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: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: 4411.0801 **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.

SIMULATOR SET-UP CONDITIONS:

None

TASK STANDARDS:

Control Rod 32-13 is fully inserted.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

1. Tools are located in OSC. It is not required to take them to the containment.
2. CRDH vent valve wrench.
3. HP Hose with fitting.
4. Other wrenches in the kit.
5. Ladder and key to unlock the ladder.

PROCEDURAL/REFERENCES:

CPS 4411.08, ALTERNATE CONTROL ROD INSERTION

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

A reactor scram occurred but control rod 32-13 failed to insert.
The containment is accessible, the reactor is shutdown and you have RP support.

INITIATING CUE:

Individually scram control rod 32-13 by venting the CRDH withdrawal line in accordance with CPS No. 4411.08, ALTERNATE CONTROL ROD INSERTION.

START TIME: _____

JPM NUMBER: 4411.0801 **REVISION: 03**

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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.** **Connect a hose from selected HCUs 1C11-1F102, CRD Withdraw Riser Vent Valve to below the Suppression Pool water level. (Valves located in HCU cat walk area)**

Standard: Examinee simulates removing both plugs from the CRD riser vent valve and connects the HP Hose.

CUE:

Comments: The HCU for control rod 32-13 is located at 755' Containment Building, east side, on the outboard end of the second bank of HCU's near the stairway from 737' to 755'. If desired the evaluator may select a different HCU if access to 32-13 is limited. Examinee should explain the venting hose assembly process and routing of the hose. (Access to the vent valve is a catwalk.)

SAT UNSAT Comment Number

***2.** **Shut 1C11-F102, HCU Withdraw Riser Valve. (First valve on right above HCU)**

Standard: Examinee simulates closing the valve for control rod 32-13.

CUE:

Comments: A ladder is needed to get to the valve.

SAT UNSAT Comment Number

JPM NUMBER: 4411.0801 **REVISION: 03**

***3. Open 1C11-1F102, CRD Withdraw Riser Vent Valve, and (MCR) Provide a continuous INSERT signal (if possible) to the selected CRD.**

Standard Examinee simulates opening the riser vent valve for control rod 32-13.

CUE MCR is providing continuous insert signal. Control Rod 32-13 is fully inserted. Close 1C11-F102.

Comments

SAT UNSAT Comment Number

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4. Close HCU Withdraw Riser Vent Valve 1C11-1F102.

Standard Examinee simulates closing the valve for control rod 32-13.

CUE

Comments

SAT UNSAT Comment Number

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2. Open HCU Withdraw Riser Valve 1C11-F102.

Standard Examinee simulates opening the valve for control rod 32-13.

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 4411.0801 **REVISION: 03**

STOP TIME: _____

TERMINATING CUES:

Control rod 32-13 is fully inserted.

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
295015	AA 1.01	3.8	3.9

Ability to operate and/or monitor CRD hydraulics they apply to INCOMPLETE SCRAM.

JPM NUMBER: 4411.0801 **REVISION: 03**

INITIAL CONDITIONS:

A reactor scram occurred but control rod 32-13 failed to insert.
The containment is accessible, the reactor is shutdown and you have RP support.

INITIATING CUE:

Individually scram control rod 32-13 by venting the CRDH withdrawal line in accordance with CPS No. 4411.08, ALTERNATE CONTROL ROD INSERTION.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Equalize Around and Open MSIVs per CPS No. 4411.09

JPM Number: 4411.0901

Revision Number: 02

Date: 12/08/03

Developed By:	**T. Pickley**	**12/08/03**
	Instructor	**Date**
Validated By:	**J. Anderson**	**10/17/03**
	SME or Instructor	**Date**
Review By:	**P. K. Ryan**	**12/15/03**
	Operations Representative	**Date**

JPM NUMBER: 4411.0901 **REVISION: 02**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

JPM NUMBER: 4411.0901 **REVISION: 02**

Revision Record (Summary)

1. **Revision 01,** Reformatted from 15200J07
2. **Revision 02,** Incorporate NRC comments, revalidation is not required.

JPM NUMBER: 4411.0901 **REVISION: 02**

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

JPM Title/Number: Equalize Around and Open MSIVs per CPS No. 4411.09

Revision Number: 02
Task Number and Title: 441109.01, Complete control room actions to perform RPV pressure control sources using normal system lineup/operation

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ❑ Plant ❑ Control Room

Testing Method: ❑ Simulate ■ Perform **Faulted:** ❑ No **Alternate Path:** ❑ No

Time Critical: ❑ No

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

References: CPS No. 4411.09 RPV PRESSURE CONTROL SOURCES

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: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: 4411.0901 **REVISION: 02**

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:
Reset to a shutdown IC, at ~300 psig with a vacuum pump, CW in operation and Main Turbine reset, then:

1) Close the Inboard MSIVs
4) Depressurize equalizing header with BPV jack to ~50 psig
5) Set pressure set at >315 psig

TASK STANDARDS:

Operator actions performed per CPS No. 4411.09

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS No. 4411.09 RPV PRESSURE CONTROL SOURCES

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS

You are the B CRO.
The plant was at rated power when a loss of IA resulted in a scram and closure of the Inbd. MSIVs.
IA has been recovered.

INITIATING CUE:

EOP-1 has been entered and to assist in RPV pressure control you are directed to reopen the Inbd. MSIVs per CPS No. 4411.09.

START TIME: _____

JPM NUMBER: 4411.0901 **REVISION: 02**

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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.

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PERFORMANCE STEPS

2.2.1 **MAIN STEAM – CONDENSER/BYPASS VALVES/MSL DRAINS**

1. **IF** This section was entered from EOP-2, EOP-3 or SAG-2,
   THEN
   1) OK to defeat isolations per CPS 4410.00C007, Defeating RPV Vent Interlocks.
   2) OK to exceed 100°F/hr cooldown.

2. Reset any cleared GROUP 1 isolations.

Standard: Determines that no pressure control system interlocks need to be defeated and that Group 1 isolation is reset.

CUE

Comments

SAT UNSAT Comment Number

3. Regardless if Circ Water (CW) is available or not:
1) Establish vacuum per CPS 3112.01, Condenser Vacuum (CA), or
2) If vacuum cannot be established, open 1CA007, Condenser Vacuum Breaker Valve.

Standard: Determines that Condenser vacuum is already established.

CUE:

Comments:

SAT UNSAT Comment Number

***4. Verify/set pressure set at least 15 psig > RPV pressure to prevent inadvertent BPV operation.**

Standard: Verifies that the pressure at least 15 psig > RPV pressure or adjusts as needed.

CUE:

Comments:

SAT UNSAT Comment Number

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5. Shut/verify shut:
1) 1B21-F022B(D, A, C), Main Steam Line B (D, A, C) Inbd MSIV.
2) 1B21-F016, MS Drn & MSIV Byp Inbd Isol Valve.
3) 1B21-F019, MS Drn & MSIV Byp Outbd Isol Valve.
4) 1B21-F020, MSIV Byp Vlv For MS Line Warm Up.

Standard:
1) 1B21-F022B(D, A, C), are verified shut (Green lights on)
2) 1B21-F016, F019 and F020, are verified shut (Green lights on)

CUE:

Comments:

SAT UNSAT Comment Number

---

6. Open/verify open:
1) 1B21-F098B(D, A, C), Main Steam Shutoff Valves.
2) 1B21-F028B(D, A, C), Main Steam Line Outbd MSIVs.

Standard: 1B21-F098B(D, A, C) and 1B21-F028B(D, A, C) are verified open (red lights on)

CUE

Comments

SAT UNSAT Comment Number

***7. Equalize around the Inbd MSIVs (F022s) to establish a $\Delta P \leq 200$ psid across the MSIVs by opening:**
1) 1B21-F016, MS Drn & MSIV Byp Inbd Isol Valve.
2) 1B21-F019, MS Drn & MSIV Byp Outbd Isol Valve.
3) 1B21-F020, MSIV Byp Vlv For MS Line Warm Up.

Standard: Opens 1B21-F016, 1B21-F019 and 1B21-F020

CUE

Comments

SAT UNSAT Comment Number

☞ OK to shut following drains to assist in the dP attempt.
- 1B21-F015, MS Low Points Drn Shutoff Valve.
- 1B21-F021, Inbd MSIV Before Seat Warmup Drn Valve.
- 1B21-F033, Inbd MSIV Before Seat Warmup Drn Valve.
- 1B21-F068, Outbd MSIV Before Seat Warmup Drn Vlv.
- 1B21-F069, Outbd MSIV Before Seat Norm Drn Vlv.
- 1B21-F070, MS Low Point Warm Up Drn Vlv.
- 1B21-F071, MS Low Point Normal Drn Vlv.
- 1TD-SV1(3,5,7), Mn Turb Stop Vlv #1(2,3,4) Drn Vlv.

Standard Shuts the drains as needed

CUE

Comments

SAT UNSAT Comment Number

---

8. Re-verify pressure set at least 15 psig > RPV pressure to prevent inadvertent BPV operation when Inbd F022s open.

Standard Verifies that the pressure at least 15 psig > RPV pressure.

CUE

Comments

SAT UNSAT Comment Number

***9. When < 200 psid dP is achieved, open 1B21-F022B(D, A, C), Main Steam Line B (D, A, C) Inbd MSIVs.**

Standard The Inboard MSIVs are open

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: 4411.0901 **REVISION: 02**

STOP TIME: _____

TERMINATING CUES:

The inboard MSIVs are open.

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
239001	A4.01	4.2*	4.0

Ability to manually operate and/or monitor MSIV's in the control room.

JPM NUMBER: 4411.0901 **REVISION: 02**

INITIAL CONDITIONS

You are the B CRO.
The plant was at rated power when a loss of IA resulted in a scram and closure of the Inbd. MSIVs.
IA has been recovered.

INITIATING CUE:

EOP-1 has been entered and to assist in RPV pressure control you are directed to reopen the Inbd. MSIVs per CPS No. 4411.09.