Exelon SM
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# CLINTON POWER STATION

## Job Performance Measure

Initiate Standby Liquid Control, RWCU Fails to Isolate

JPM Number: 44111001LSA01

Revision Number: 04

Date: 3/19/07

| | | |
|---|---|---|
| **Developed By:** | **Tom Pickley** | **3/19/07** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| 00 | unknown | New JPM. |
| 01 | Unknown | Incorporated Pen and Ink 2002-12-0311A converted JPM Number to the correct JPM Numbering Convention, was B.1.a.1. |
| 02 | 9/21/04 | Updated to new format and numbering convention. Revalidated. This JPM replaces 44111001L01. |
| 03 | 5/22/06 | JPM revised to reflect new revision to 4411.10, 4d. |
| 04 | 3/19/07 | JPM revised to reflect new revision to 4411.10, 4e. |

**Clinton Power Station**
**Job Performance Measure (JPM)**

## Simulator Setup Instructions

1. Initialize in a full power IC.
2. Insert malfunctions to defeat automatic and manual scram signals. (RP01)
3. Defeat isolation of RWCU due to SLC initiation. (EP105)
4. Place Mode switch in S/D, stabilize the plant

**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.

**TASK STANDARDS**:

- SLC has been initiated.
- RWCU 1G33-F001 and F004 have been closed manually.

**TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**

- None

**PROCEDURAL/REFERENCES:**

- CPS 4411.10, SLC OPERATIONS, Revision 4e

**EVALUATOR INSTRUCTIONS:**

:

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

**INITIAL CONDITIONS:**

You are the B RO. The plant is in an ATWS condition.

**Clinton Power Station**
**Job Performance Measure (JPM)**

**INITIATING CUE:**

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

You are directed to initiate SLC per CPS 4411.10, SLC OPERATIONS.

**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 4411.10, SLC OPERATIONS or 4411.10 Appendix A

**Note to Examiner**
**The SLC Hard Card may be used for this task.**

---

***1** **2.1.1.1 or Hard Card step 1.**
**Place handswitch for SLC Pump A 1C41-C001A to the RUN position.**

Standard: Locates handswitch 1C41-C001A, rotates in the clockwise direction to RUN and allows to spring return to normal.
Verifies Green Light is OFF and Amber Light ON.
Records correct start time for SLC Pump A.

Cue:

Comments Examinee may report to the CRS and record start time after both pumps are started. Recording the start time is not critical.

SAT ☐ UNSAT ☐ Comment Number _____

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| | | |
|---|---|---|
| | ***2** | **2.1.1.2**<br>**Place handswitch for SLC Pump B, 1C41-C001B to the RUN position.** |
| Standard: | | Locates handswitch 1C41-C001B, rotates in the clockwise direction to RUN and allows to spring return to normal.<br>Verifies Green Light is OFF and Amber Light ON.<br>Records correct start time for SLC Pump B. |
| Cue: | | |
| Comments | | Examinee may report to the CRS and record start time after both pumps are started. This is acceptable. |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 3 | 2.1.2<br>Verify SLC initiation sequence:<br>SLC DISCH TO RPV SQUIB A AND B CONTINUITY lights go out. |
| Standard: | | Verifies SLC DISCH TO RPV SQUIB A AND B CONTINUITY lights are OFF. |
| Cue: | | |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 4 | 2.1.2<br>SLC A(B) OUT OF SERVICE annunciators 5067(66)-8F alarm. |
| Standard: | | Verifies SLC A OUT OF SERVICE and SLC B OUT OF SERVICE annunciators 5067-8F and 5066-8F actuate. |
| Cue: | | |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 5 | 2.1.2<br>SLC Suct Valve (Vlv) A(B) Fm SLC Strg (Stor) Tank [1C41-F001A(B)] valves open. |
| Standard: | | Verifies SLC Suct Valve (Vlv) A and B Fm SLC Strg (Stor) Tank [1C41-F001A(B)] valves open by observing Red Lights ON and Green Lights OFF for each valve. |
| Cue: | | |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | ***6** | **2.1.2**<br>**1G33-F001 & F004, RWCU Inbd (Outbd) Suct Isol shut, unless the isolation logic is bypassed for RPV pressure control.** |
| Standard: | | Reports 1G33-F001 & F004, RWCU Inbd (Outbd) Suct Isol failed to shut.<br>Depresses the Close pushbuttons for 1G33-F001 and 1G33-F004.<br>Observes Green Lights ON and RED Lights OFF for both 1G33-F001 & F004. |
| Cue: | | If requested, state “The isolation logic for 1G33-F001 & F004 is not defeated”. |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 7 | 2.1.2<br>SLC Pump A(B), 1C41-F001A(B) start when its respective suction valve is fully open. |
| Standard: | | Verifies both SLC Pumps A(B), 1C41-F001A(B) START when its respective suction valve is fully open.<br>Observes RED Light ON and Amber Light OFF for each pump. |
| Cue: | | |
| Comments | | Operator may record this time as the pump start time. This is acceptable<br>SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 8 | 2.1.3<br>**IF** RWCU is being used for RPV pressure control,<br>**THEN** Verify the Regen Hx and Filter Demin are bypassed. |
| Standard: | | Verifies RWCU is NOT being used for RPV pressure control. |
| Cue: | | If asked, *but only if the operator has not manually closed –F001 and –F004*, state, "RWCU is not being used for RPV pressure control"<br>If the operator has closed -F001, and –F004 this step is self evident and no cue should be provided. |
| Comments | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| | 9 2.1.4<br>Verify SLC solution injecting into the RPV by observing:<br>• SLC Strg Tank Level, 1C41-R601 lowering.<br>• SLC Pump Disch Header Press, 1C41-R600 is slightly > RPV pressure and is < 1400 psig.<br>• Reactor power lowering. |
| Standard: | Monitor Storage Tank level indication C41-R601 and observe level is LOWERING.<br>Verifies SLC pump discharge header pressure indication C41-R600 is ABOVE RPV pressure.<br>Verifies Reactor power is LOWERING using any suitable indication in the Control Room. |
| Cue: | If asked, *but only if operator is actually looking at power indications*, state: Reactor Power is lowering".<br>If asked, *but only if operator is looking at SLC tank level*, state "Tank level is lowering". |
| Comments | Power indications may come from DCS, NBI, chart recorders etc. Indication observed should be appropriate for relative power level.<br>SLC discharge pressure is self revealing and no cue should be provided for this parameter.<br>SAT ☐ UNSAT ☐ Comment Number _____ |

**TERMINATING CUES:**

SLC is injecting with both pumps.

**STOP TIME:** _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: Initiate Standby Liquid Control, RWCU Fails to Isolate

JPM Number: 44111001LSA01 Revision Number:02

Task Number and Title: 441110.01 Complete Control Room actions to perform SLC initiation.

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 211000 | A4.06 | 3.9 | 3.9 |

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ■ No

**Estimated Time to Complete:** 7 minutes Actual Time Used: _____ minutes

References: CPS No. 4411.10 Rev. 4e SLC Operations

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

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

Comments: _____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

## Initial Conditions

You are the B RO. The plant is in an ATWS condition.

## Initiating Cue

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

You are directed to initiate SLC per CPS 4411.10, SLC OPERATIONS.

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# CLINTON POWER STATION

## Job Performance Measure

High Pressure Core Spray Suction Source Shift – Alternate Path

JPM Number: 33090106LSA02

Revision Number: 01

Date: 03/19/2007

| | | |
|---|---|---|
| **Developed By:** | **Tom Pickley** | **3/19/07** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| Rev 0 | 6/30/2006 | Revision 0 development. Converted from HP-28. |
| Rev 1 | 3/19/2007 | Updated for procedure revision. |
| | | |
| | | |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Simulator Setup Instructions

**(This page is applicable only to JPMs performed in the Simulator.)**

1. Reset the simulator to IC-01 or any IC with the HPCS suction on the RCIC storage tank.

2. Over-ride the lights for 1E22-F001 with the Green light OFF and the Red light ON (this will simulate 1E22-F001 does not auto shut when 1E22-F015 is opened).

3. Insert an conditional statement when the control switch for 1E22-F001 is taken to the CLOSE position to turn on the GREEN close light immediately and turn off the RED open light after 60 seconds for 1E22-F001 (simulates closing 1E22-F001 when the control switch is taken to close).

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

4. Verify the HPCS suction is from the RCIC Tank.

5. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs if applicable.

6. This completes the setup for this JPM.

**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.

**TASK STANDARDS**:

- The evolution completed IAW CPS No. 3309.01, High Pressure Core Spray revision 15c.

**TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**

- None

**PROCEDURAL/REFERENCES:**

- CPS No. 3309.01, High Pressure Core Spray revision 15c.

**EVALUATOR INSTRUCTIONS:**

- Amplifying cues are provided within the JPM steps.
- Provide examinee the procedure.
- All pre-job briefings are completed.
- No peer checks will be performed.

**INITIAL CONDITIONS:**

You are the B RO. Station management has opted to run with the High Pressure Core Spray System suction aligned to the suppression pool.

**Clinton Power Station**
**Job Performance Measure (JPM)**

**INITIATING CUE:**

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Shift the High Pressure Core Spray suction to the suppression pool IAW CPS No. 3309.01, High Pressure Core Spray, section 8.1.7.1.

**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**

**3309.01, High Pressure Core Spray section 8.1.7.1 Shifting HPCS Suction to Suppression Pool**

1 Shut/verify shut:
1) 1E22-F010, HPCS First Test Vlv To Storage Tank.
2) 1E22-F011, HPCS Second Test Vlv To Storage Tank.

| | |
|---|---|
| Standard: | Verifies green light ON and red light OFF for each valve. |
| Cue: | None |
| Comments | None |

SAT ☐ UNSAT ☐ Comment Number _____

*OP-CL-108-101-1001, GENERAL EQUIPMENT OPERATING REQUIREMENTS*
*MOV Test Prep Switch (MOVTPS) Use*

2 Places the HPCS MOV Test Prep Switch should be placed in TEST.

| | |
|---|---|
| Standard: | Verify the other MOVTPSs for the other divisions in that system are in NORMAL then places the HPCS MOV Test Prep Switch should be placed in TEST. |
| Cue: | If asked about the Short Term LCO, the CRS will take care of it. |
| Comments | The student may callout an expacted alarm when the MOVTPS is placed in Test. |

SAT ☐ UNSAT ☐ Comment Number _____

---

***3 Open 1E22-F015, HPCS Suppr Pool Suction Valve.**

| | |
|---|---|
| Standard: | 1E22-F015, HPCS Suppr Pool Suction Valve handswitch is taken to the OPEN position and released. |
| Cue: | You may need to cue the student to hold the switch at least one full second or the simulator may not see the action. |
| Comments | The HPCS MOV Test Prep Switch should be placed in TEST. |

SAT ☐ UNSAT ☐ Comment Number _____

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# BEGIN ALTERNATE PATH

---

***4 Verify 1E22-F001, HPCS Storage Tank Suction Valve shuts.**

| | |
|---|---|
| Standard: | Student identifies 1E22-F001 does not shut.<br>The handswitch for 1E22-F001 or 1E22-F015 is taken to the SHUT position and released. |
| Cue: | • If an NLO is sent to locally determine valve position, the local position will correspond to the position indication on the MCR panel. |
| Comments | ▪ Precaution 4.11 requires the operator to ensure one of the suction valves is fully closed following a suction source swap. The operator may shut 1E22-F001 to comply with the precaution. This would satisfy the critical step.<br>▪ The HPCS MOV Test Prep switch should be returned to NORMAL after this step. |

SAT ☐ UNSAT ☐ Comment Number _____

---

**TERMINATING CUES:**

The JPM is complete when the 1E22-F001 valve is shut and the 1E22-F015 valve is open or 1E22-F015 is reclosed.

**STOP TIME:** _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: High Pressure Core Spray Suction Source Shift – Alternate Path

JPM Number: 33090106LSA02 Revision Number: 1

Task Number and Title: 330901.06 Shift HPCS Suction to the Suppression Pool

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 209002 | A4.02 | 3.6 | 3.6 |
| | | | |

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ■ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ■ No

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

References: CPS No. 3309.01 High Pressure Core Spray, revision 15c.

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

## INITIAL CONDITIONS:

You are the B RO. Station management has opted to run with the High Pressure Core Spray suction aligned to the suppression pool.

## INITIATING CUE:

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Shift the High Pressure Core Spray suction to the suppression pool IAW CPS No. 3309.01, High Pressure Core Spray, section 8.1.7.1.

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# CLINTON POWER STATION

## Job Performance Measure

Control Reactor Pressure Using Main Steam Line Drains

JPM Number: 31010103LSN01

Revision Number: 00

Date: 7/03/2006

| | | |
|---|---|---|
| **Developed By:** | **Fred Worrell** | **7/3/06** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| 0 | 7/3/06 | Converted from JPM 011239J001 |
| | | |
| | | |
| | | |

**Clinton Power Station**
**Job Performance Measure (JPM)**

## Simulator Setup Instructions

**(This page is applicable only to JPMs performed in the Simulator.)**

1. Reset the simulator to IC-01

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

2. Scram the reactor. Verify the Mode Switch is in SHUTDOWN.
3. Shut the Inboard MSIV's.
4. Verify the Steam Line Drains on the hard card are SHUT.
5. Adjust pressure set to 900 psig.
6. Verify there is not a Group 1 Isolation.
7. Ensure the Group1 Isolation and MSL Drains Usage Hard Card is cleaned. Note that it needs to be cleaned between each time before the start of the JPM.
8. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs if applicable.
9. This completes the setup for this JPM.

**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.

**TASK STANDARDS**:

- The evolution completed IAW 3101.01 Main Steam, revision 19d, Appendix A or 4411.09 RPV Pressure Control Sources revision 5c.
- **TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**
- None

**PROCEDURAL/REFERENCES:**

- CPS No. 3101.01, Main Steam revision 19d.

**EVALUATOR INSTRUCTIONS:**

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

**INITIAL CONDITIONS:**

You are the B RO. The unit is shutdown with the Inboard Main Steam Isolation Valves closed. The Steam Line Drains are needed to assist in the control of reactor pressure. A Group 1 isolation has NOT been received.

**Clinton Power Station**
**Job Performance Measure (JPM)**

**INITIATING CUE:**

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Control Reactor Pressure between 600 and 900 psig using the Main Steam Line Drains per 3101.01 Appendix A: Group 1 Isolation and MSL Drain Usage Hard Card.

**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**

**Appendix A: to CPS No. 3101.01 Main Steam**

***1. As directed, operate the following MSIV's and MSL Drains as needed to control RPV pressure, cooldown rate and Group 1 Isol.**

Standard: 1B21-F016, MS Drn & MSIV Byp Inbd Isol Valve is opened.

Cue: If the student questions the pressure band, que the student that the band was chosen to prevent SRV operation on Low-Low Set.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

**Appendix A: to CPS No. 3101.01 Main Steam**

***2. As directed, operate the following MSIV's and MSL Drains as needed to control RPV pressure, cooldown rate and Group 1 Isol.**

Standard: 1B21-F019, MS Drn & MSIV Byp Outbd Isol Valve is opened.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

**Appendix A: to CPS No. 3101.01 Main Steam**

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***3. As directed, operate the following MSIV's and MSL Drains as needed to control RPV pressure, cooldown rate and Group 1 Isol.**

Standard: The following valves are opened **as necessary** to produce a lowering of reactor vessel pressure with the Safety Relief Valves closed.
1B21-F020, MSIV Byp Vlv For MS Line Warm Up
1B21-F021, Inbd MSIV Before Seat Warmup Drn Vlv
1B21-F033, Inbd MSIV Before Seat Warmup Drn Vlv
1B21-F067B, MSL B Outbd MSIV Before Seat Drn Vlv
1B21-F067D, MSL D Outbd MSIV Before Seat Drn Vlv
1B21-F067A, MSL A Outbd MSIV Before Seat Drn Vlv
1B21-F067C, MSL C Outbd MSIV Before Seat Drn Vlv
1B21-F068, Outbd MSIV Before Seat Warmup Drn Vlv
1B21-F069, Outbd MSIV Before Seat Norm Drn Vlv
1B21-F015, MS Low Points Drn Shutoff Valve
1B21-F066B, Main Steam Line B Low Point Drn Vlv
1B21-F066D, Main Steam Line D Low Point Drn Vlv
1B21-F066A, Main Steam Line A Low Point Drn Vlv
1B21-F066C, Main Steam Line C Low Point Drn Vlv
1B21-F070, MS Low Point Warm Up Drn Vlv
1B21-F071, MS Low Point Normal Drn Vlv

Cue:

Comments This step is considered to be met when the valves listed above are open **OR** enough of the valves have been opened to stabilize reactor pressure.

SAT ☐ UNSAT ☐ Comment Number _____

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**Clinton Power Station**
**Job Performance Measure (JPM)**

**TERMINATING CUES:**

The JPM is complete when the valves listed in this JPM are open **OR** enough of the valves have been opened to stabilize reactor pressure.

When the student reaches the termination criteria, it is acceptable for the instructor to terminate the JPM.

**STOP TIME:** _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: Control Reactor Pressure Using Main Steam Line Drains

JPM Number: 31010103LSN01 Revision Number: 0

Task Number and Title: 310101.03 MSL Drain Valve Operation

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 239001 | A4.02 | 3.2 | 3.2 |
| | | | |

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ■ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ■ No

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

References: Appendix A to CPS No. 3101.01, Main Steam revision 19d

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

## Initial Conditions

You are the B RO. The unit is shutdown with the Inboard Main Steam Isolation Valves closed. The Steam Line Drains are needed to assist in the control of reactor pressure. A Group 1 isolation has NOT been received.

## Initiating Cue

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Control Reactor Pressure between 600 and 900 psig using the Main Steam Line Drains per 3101.01 Appendix A: Group 1 Isolation and MSL Drain Usage Hard Card.

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# CLINTON POWER STATION

## Job Performance Measure

Shutdown RCIC – Initiation Signal Clear

JPM Number: 33100106LSN01

Revision Number: 00

Date: 7/4/2006

| | | |
|---|---|---|
| **Developed By:** | **Fred Worrell** | **7/4/2006** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| 0 | 7/4/2006 | Converted from JPM 011217J005 |
| | | |
| | | |
| | | |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Simulator Setup Instructions

**(This page is applicable only to JPMs performed in the Simulator.)**

1. Reset the simulator to IC-01 or any IC that will support RCIC tank to tank operation without an initiation signal (JPM Set 5)

2. Place/verify the RCIC suction to the RCIC Storage Tank.

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

3. Place RCIC in the Tank to Tank mode per 3310.01.

4. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs if applicable.

5. This completes the setup for this JPM.

**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.

**TASK STANDARDS**:

- RCIC is shutdown with the initiation signal clear per section 8.1.6 of CPS No. 3310.01 Reactor Core Isolation Cooling revision 26b

**TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**

- None

**PROCEDURAL/REFERENCES:**

- CPS No. 3310.01 Reactor Core Isolation Cooling revision 26b

**EVALUATOR INSTRUCTIONS:**

- Amplifying cues are provided within the JPM steps.
- 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:**

You are the B RO. The unit is at power. RCIC is in the Tank to Tank mode. No initiation signal is present.

**INITIATING CUE:**

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Shutdown RCIC per CPS No. 3310.01 Reactor Core Isolation Cooling.

**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**

**3310.01 Section 8.1.6 Shutdown – Initiation Signal Clear**

| | | |
|---|---|---|
| | 1 | If necessary, depress RCIC SEAL IN RESET push-button. |
| Standard: | | Determines RESET is not necessary. WHITE light is extinguished |
| Cue: | | If the student asks if this step should be performed, ask “Is it necessary?”. |
| Comments | | If the student presses the pushbutton, it will have no effect on the JPM. |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

*OP-CL-108-101-1001, GENERAL EQUIPMENT OPERATING REQUIREMENTS*
*MOV Test Prep Switch (MOVTPS) Use*

| | | |
|---|---|---|
| | 2. | Places RCIC Div 1 Test Prep Switch in Test |
| Standard: | | Verify the other MOVTPSs for the other divisions in that system are in NORMAL then places RCIC Div 1 Test Prep Switch in Test |
| Cue: | | If asked about the Short Term LCO, the CRS will take care of it. |
| Comments | | The student may callout an expacted alarm when the MOVTPS is placed in Test. |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

**Clinton Power Station**
**Job Performance Measure (JPM)**

---

***3 Shut (if open) 1E51-F022, RCIC Pmp First Test Valve To Stor Tank**

Standard: Takes hand-switch for 1E51-F022 to CLOSE and observes GREEN light ON. Verifies Min Flow valve opens.

Cue:

Comments: This will put the RCIC pump on min flow. Time spend on min flow should be minimized.

SAT ☐ UNSAT ☐ Comment Number _____

---

***4 Trip RCIC turbine from 1H13-P601 by depressing the RCIC TURBINE REMOTE TRIP push-button.**

Standard: Trips the RCIC turbine using the RCIC TURBINE REMOTE TRIP push-button. Observes turbine speed decreasing. Observes bottom GREEN light ON and bottom RED light OUT for the trip/throttle valve.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

***5. Shut (if open) 1E51-F059, RCIC Second Test Valve To Stor Tank.**

Standard: Takes handswitch for 1E51-F059 to close and observes GREEN light ON and RED light OUT.

Cue:

Comments: The student may callout an expacted alarm when the MOVTPS is placed in Test.

SAT ☐ UNSAT ☐ Comment Number _____

---

| | | |
|---|---|---|
| | ***6** | **Shut/verify shut 1E51-F045, RCIC Turb Stm Supp Shutoff Valve.** |
| Standard: | | Takes handswitch for 1E51-F045 to CLOSE and observes GREEN light ON and RED light OUT. |
| Cue: | | |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 7 | After 1E51-F045 closes, verify the following valves open automatically:<br>a) 1E51-F004, RCIC Turb Exh Drn To RF First Isol Vlv.<br>b) 1E51-F025, RHR & RCIC Stm Supp First Drn Isol Valve.<br>c) 1E51-F026, RHR & RCIC Stm Supp Second Drn Isol Valve. |
| Standard: | | After 1E51-F045 closes, observes the RED light ON for each valve and GREEN light OUT |
| Cue: | | |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 8 | Verify following valves shut:<br>a) 1E51-F013, RCIC Pump Disch To Rx Outbd Isol Valve.<br>b) 1E51-F019, RCIC Pmp Min Flow Recirc To Suppr Pool. |
| Standard: | | Verifies 1E51-F013 and 1E51-F019 SHUT by observing GREEN light ON and RED light OUT for each valve. |
| Cue: | | |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

9 Reset the RCIC Turbine Trip & Throttle Valve as follows:
a) Place 1E51-C002, RCIC Turbine Trip Vlv Opr switch to CLOSE to reset the RCIC Turbine Trip & Throttle Valve.
b) Open 1E51-C002, RCIC Turbine Trip Vlv Opr (Stem).

Standard: Takes handswitch for 1E51-C002 to CLOSE and verifies top GREEN light ON and RED light OUT. Takes handswitch for 1E51-C002 to OPEN and verifies the following RED lights ON and GREEN lights OUT:
RCIC TURBINE TRIP VLV OPR
TURBINE TRIP VALVE STEM

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

10 Stop the Gland Seal Air Compressor

Standard: Takes handswitch for Gland Seal Compressor to STOP and observes GREEN light ON.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

11 Shut 1E51-F046, RCIC Pmp Supp To Turb Lube Oil Clr

Standard: Takes handswitch for 1E51-F046 to CLOSE and verifies GREEN light ON and RED light OUT.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

| | |
|---|---|
| 12 | Verify RCIC Pump Flow Cont, 1E51-R600 set to 620 gpm/AUTO. |
| Standard: | Verifies 1E51-R600 set to 620 gpm and in AUTO. |
| Cue: | |
| Comments | The MOV Test Prep Switches may be returned to normal at this time. |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

**TERMINATING CUES:**

RCIC is shutdown and the MOV Test Prep Switches returned to normal.

**STOP TIME:** _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: Shutdown RCIC - Initiation Signal Clear

JPM Number: 33100106SN01 Revision Number: 0

Task Number and Title: 331001.06 RCIC System Shutdown with initiation signal clear.

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 217000 | A4.01 | 3.7 | 3.7 |
| | | | |

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ■ No

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

References: CPS No. 3310.01 Reactor Core Isolation Cooling revision 26b

**EVALUATION SUMMARY:**

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

## Initial Conditions

You are the B RO. The unit is at power. RCIC is in the Tank to Tank mode. No initiation signal is present.

## Initiating Cue

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Shutdown RCIC per CPS No. 3310.01 Reactor Core Isolation Cooling section 8.1.6.

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# CLINTON POWER STATION

## Job Performance Measure

**Place RHR A In Suppression Pool Cooling From Standby per CPS No. 3312.01 (Alternate Path)**

JPM Number: 33120109LSA01

Revision Number: 03

Date: 03/19/2007

| | | |
|---|---|---|
| **Developed By:** | **Tom Pickley** | **03/19/07** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| 00 | Unknown | This revision never issued. |
| 01 | 07/01/02 | This is a new JPM and incorporates validation comments |
| 02 | 08/23/05 | Revised and incorporated comments, and updated format. |
| 03 | 03/19/07 | Revised for procedure revision. |
| | | |

**Information For Evaluator's Use:**

UNSAT requires written comments on respective step.
* Denotes critical steps.

Number any comments in the "Comment Number" blank on the applicable pages. Then annotate that comment in the "Comments" Evaluation Summary page.

The comment section should be used to document the reason that a step is marked as unsatisfactory and to document unsatisfactory performance relating to management expectations.

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

The time clock starts when the candidate acknowledges the initiating cue.

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: Place RHR A In Suppression Pool Cooling From Standby per CPS No. 3312.01 (Alternate Path)

JPM Number: 33120109LSA01 Revision Number: 02

Task Number and Title: 331201.09, Complete Control Room Actions to Start Suppression Pool Cooling

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 219000 | A4.02 | 3.7 | 3.5 |
| 219000 | A4.01 | 3.8 | 3.7 |

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ■ No **SRO Only:** ☐ Yes ■ No

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

References: CPS No. 3312.01 rev.37c, RESIDUAL HEAT REMOVAL
OP-CL-108-101-1001 rev. 6, GENERAL EQUIPMENT OPERATING
OP-AA-108-104 rev. 0, TECHNICAL SPECIFICATION COMPLIANCE

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

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

Comments: _____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

## Simulator Setup Instructions

1. An IC with Plant Service Water (WS) supplying Div. I Shutdown Service Water (SX).
2. RHR Loop "A" is in the Standby Mode.
3. Insert Malfunction to trip the RHR Pump A when SX82A RHR A HX MU Cond Inlet valve is being shut.

**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.

**TASK STANDARDS**:

- RHR A Test Return Valve to Suppression Pool 1E12-F024A is shut after RHR A Pump is tripped.

**TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**

- None

**PROCEDURAL/REFERENCES:**

- CPS No. 3312.01 rev. 36c, RESIDUAL HEAT REMOVAL
- OP-CL-108-101-1001 rev. 6, GENERAL EQUIPMENT OPERATING REQUIREMENTS
- OP-AA-108-104 rev. 0, TECHNICAL SPECIFICATION COMPLIANCE

**EVALUATOR INSTRUCTIONS:**

- Amplifying cues are provided within the JPM steps.
- **DO NOT** permit use of HARD CARD.

**INITIAL CONDITIONS:**

You are an extra RO. SRV testing is scheduled.

**Clinton Power Station**
**Job Performance Measure (JPM)**

**INITIATING CUE:**

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Place RHR loop "A" in the Suppression Pool Cooling mode per CPS No. 3312.01, RESIDUAL HEAT REMOVAL, section 8.1.9. Inform the CRS 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**

**Placing RHR loop "A" in Suppression Pool Cooling**

| | | |
|---|---|---|
| | 1 | If RHR Pump A stops, Then shut 1E12-F024A, RHR A Test Valve to Suppr Pool (system draw down to pool will require fill and vent). |
| Standard: | | If RHR Pump A stops the examinee shuts 1E12-F024A. |
| Cue: | | None |
| Comments | | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| | 2 During Pool Cooling Mode, verify as appropriate that<br>1E12-F064A, RHR Pump A Min Flow Recirc Valve,<br>Opens whenever RHR flow is < 1100 gpm for > 8 sec, and Shuts whenever RHR flow is > 1100 gpm. |
| Standard: | When RHR Pump A is started, verifies RHR Pump Minimum Flow Recirc Valve 1E12-F064A opens and then closes when RHR Flow is >1100 gpm. (P601 meter) |
| Cue: | None |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| | 3 To place RHR Loop A in suppression pool cooling:<br>Place/verify SX A PRM 1RIX-PR038,<br>Shutdown Service Water A Effluent (SX) in service |
| Standard: | Verifies SX "A" PRM 1RIX-PR038 Shutdown Service Water A Effluent (SX) in service by Checking AR/PR Monitor. |
| Cue: | Inform examinee 1RIX-PR038 is in service. |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | 4 | Verify WS available to RHR A Hx |
| Standard: | | Verifies WS available to RHR A HX by ensuring SSW STR 1A Outlet pressure at >100 psig on PI-SX028. |
| Cue: | | None |
| Comments | | |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | | *OP-CL-108-101-1001, GENERAL EQUIPMENT OPERATING REQUIREMENTS* *MOV Test Prep Switch (MOVTPS) Use* |
| | 5 | Places RHR Div 1 Test Prep Switch in Test |
| Standard: | | Verify the other MOVTPSs for the other divisions in that system are in NORMAL then places RHR Div 1 Test Prep Switch in Test |
| Cue: | | If asked about the Short Term LCO, the CRS will take care of it. |
| Comments | | The student may callout an expacted alarm when the MOVTPS is placed in Test. |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | ***6** | **Start RHR Pump A, 1E12-C002A.** |
| Standard: | | Turns the control switch for RHR Pump A to START and then releases. |
| Cue: | | None |
| Comments | | Annunciator 5067-4A, “ADS A LPCS/RHR A Permissive” actuates. |
| | | SAT ☐ UNSAT ☐ Comment Number _____ |

| | | |
|---|---|---|
| | ***7** | **Open 1E12-F024A, RHR A Test Valve To Suppr Pool** |
| Standard: | | Opens 1E12-F024A, RHR A Test Valve to Suppr Pool, RED light ON and GREEN light OFF. |
| Cue: | | None |
| Comments | | Verifies RHR Pump Minimum Flow Recirc Valve 1E12-F064A closes when RHR Flow is >1100 gpm<br>SAT ☐ UNSAT ☐ Comment Number _____ |
| | 8 | Verify flow 4550 to 5550 gpm on RHR Pump A Flow Meter, 1E12-R603A. |
| Standard: | | Verifies flow between 4550 to 5500 gpm on 1E12-R603A (RHR A Flow Meter) |
| Cue: | | None |
| Comments | | If flow is not correct the SRO should be notified.<br>SAT ☐ UNSAT ☐ Comment Number _____ |
| | | *OP-CL-108-101-1001, GENERAL EQUIPMENT OPERATING REQUIREMENTS* *MOV Test Prep Switch (MOVTPS) Use* |
| | 9 | Places Div 1 SX Test Prep Switch in Test. |
| Standard: | | Verify the other MOVTPSs for the other divisions in that system are in NORMAL then places Div 1 SX Test Prep Switch in TEST |
| Cue: | | If asked about the Short Term LCO, the CRS will take care of it. |
| Comments | | The student may callout an expacted alarm when the MOVTPS is placed in Test.<br>SAT ☐ UNSAT ☐ Comment Number _____ |

10 Shut 1SX082A RHR A Hx 1A MU Cond Inlet Vlv.

Standard: 1SX082A, RHR A Hx 1A Mu Cond Inlet Valve is shut, GREEN light ON and RED light OFF.

Cue: None.

Comments RHR A Pump is setup to trip when 1SX082A begins to shut.

SAT ☐ UNSAT ☐ Comment Number _____

**BEGINS ALTERNATE PATH**

***11 Recognizes RHR Pump A trip**

Standard:
- Recognizes RHR Pump A trip.
- CLOSES Suppression Pool Test Return Valve 1E12-F024A, GREEN light ON and RED light OFF.

Cue: None.

Comments This action comes from:

8.1.9.1 IF RHR Pump A(B) stops,
THEN Shut 1E12-F024A(B), RHR A(B) Test Valve To Suppr Pool (system draw down to pool will require fill & vent).

SAT ☐ UNSAT ☐ Comment Number _____

| | | |
|---|---|---|
| | 12 | Reports the RHR A Pump trip to CRS. |
| Standard: | Notifies the CRS of A RHR Pump trip. | |
| Cue: | Inform operator that SRV testing will be postponed. | |
| Comments | | |
| | SAT ☐ UNSAT ☐ Comment Number _____ | |

**TERMINATING CUES:**

Suppression Pool Test Return Valve for A RHR Loop 1E12-F024A is closed following trip of RHR Pump "A".

**STOP TIME:** _____

## Initial Conditions

You are an extra RO. SRV testing is scheduled.

## Initiating Cue

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

Place RHR loop "A" in the Suppression Pool Cooling mode per CPS No. 3312.01, RESIDUAL HEAT REMOVAL, section 8.1.9. Inform the CRS when the task is complete.

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# CLINTON POWER STATION

## Job Performance Measure

Use Alternate Methods to Determine Control Rod Position
per CPS No. 3304.02

JPM Number: 33040226LSA01

Revision Number: 00

Date: 8/11/06

| | | |
|---|---|---|
| **Developed By:** | **Fred Worrell** | **8/11/06** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| 0 | 8/11/06 | Converted from old JPM 014201J003 |
| | | |
| | | |
| | | |

**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**:

- The task is completed IAW CPS No. 3304.02 , ROD CONTROL AND INFORMATION SYSTEM (RC&IS), Revision 16d, Section 8.2.11.5.

**TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**

- None

**PROCEDURAL/REFERENCES:**

- CPS No. 3304.02 , ROD CONTROL AND INFORMATION SYSTEM (RC&IS), Revision 16d

**EVALUATOR INSTRUCTIONS:**

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

**INITIAL CONDITIONS:**

You are an extra RO on shift. The unit has experienced a trip. The full core display is dead and cannot be used to verify all control rods are fully inserted.

**Clinton Power Station**
**Job Performance Measure (JPM)**

**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.

Using the Identification Generator on either RACCS panels, verify the position of all control rods per CPS No. 3304.02, Rod Control and Information System, section 8.2.11.5. through 8.2.11.5.4)b)

Do not perform 8.2.11.5.4)c)

**START TIME:** _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

**PERFORMANCE INFORMATION**

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

**PERFORMANCE STEPS**

**CPS No. 3304.02, Section 8.2.11.5**

| | |
|---|---|
| | ***1) On the DRIFT MEMORY II card,<br>Place the DISPLAY LOAD MODE toggle switch (S2) in the CONTINUOUS (up) position.** |
| Standard: | Points to the DISPLAY LOAD MODE toggle switch (S2) and verbalizes that it would be placed in the CONTINUOUS (up) position. |
| Cue: | Tell the student the DISPLAY LOAD MODE toggle switch (S2) is in the CONTINUOUS (up) position. |
| Comments | Do NOT allow examinee to shine any type light into this panel.<br>Card slot label is used to identify the Drift Memory II card.<br><br>SAT ☐ UNSAT ☐ Comment Number _____ |

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| ***2)** | **On the ID GENERATOR II card, Place the ADVANCE MODE toggle switch in the MANUAL (up) position** |
| Standard: | Verbalizes that the ADVANCE MODE toggle switch would be placed in the MANUAL (up) position. |
| Cue: | The ADVANCE MODE toggle switch is in the MANUAL (up) position. |
| Comments | ▪ Card slot is is used to identify the ID Generator II card<br>SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| ***3** | **On the ID GENERATOR II card,**<br>**Use the RPIS II display and the STEP SCAN IDENT push-button to select and identify control rod positions (use Appendices B and C as needed).** |
| Standard: | Student indicates that the STEP SCAN IDENT push-button would be repeatedly depressed each time looking for the $V_1$ and $H_4$ lights on PROBE Data Table. |
| Cue: | Give the student Attachment 1 as the cue to the indications for the PROBE data table as the STEP SCAN IDENT push-button is repeatedly depressed WITH THE FOLLOWING EXCEPTION:<br>Cue the student that ONE of the times the STEP SCAN IDENT push-button was depressed, the indications shown in Attachment 2 were seen (give the student Attachment 2) |
| Comments | It is not necessary for the student to simulate depressing the STEP SCAN IDENT push-button 145 times. After the student has simulated pressing the button several times, move to the next step.<br>SAT ☐ UNSAT ☐ Comment Number _____ |

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| ***3** | **On the ID GENERATOR II card,**<br><br>**Use the RPIS II display and the STEP SCAN IDENT push-button to select and identify control rod positions (use Appendices B and C as needed).** |
| Standard: | Student uses Table 2, PROBE DATA MATRIX LED TRANSLATION and Appendix C to determine control rod 16-21 is at position 36. |
| Cue: | Give the student Attachment 2.<br>Once this step is compete, inform the student that all control rods have been checked. |
| Comments | The student must be very careful in determining the X and Y binary coordinates. |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| 4)a) | To restore RC&IS to service in the Automatic Mode:<br>On the ID GENERATOR II card,<br>Place the ADVANCE MODE toggle switch in the AUTO (down) position. |
| Standard: | Verbalizes that the ADVANCE MODE toggle switch would be placed in the AUTO (down) position. |
| Cue: | The ADVANCE MODE toggle switch is in the AUTO (down) position. |
| Comments | Do NOT allow examinee to shine any type light into this panel |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| 4)b) | On the DRIFT MEMORY II card,<br>Place the DISPLAY LOAD MODE toggle switch (S2) in the FAULT (down) position. |
| Standard: | Points to the DISPLAY LOAD MODE toggle switch (S2) and verbalizes that it would be placed in the FAULT (down) position. |
| Cue: | Tell the student the DISPLAY LOAD MODE toggle switch (S2) is in the FAULT (down) position. |
| Comments | You may need to remind the student per the initiating cue, not to perform the next step. |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

**TERMINATING CUES:**

The student does not have to simulate stepping through all 145 control rods.

The student has determined that control rod 16-21 is at position 36.

**STOP TIME:** _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: Use Alternate Methods to Determine Control Rod Position per CPS No. 3304.02

JPM Number: 33040226LSA01 Revision Number: 0

Task Number and Title: (330402.26) use Alternate Means of Determining Control Rod Positions

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 201005 | A4.03 | 3.4 | 3.3 |
| 295006 | AA1.07 | 4.1 | 4.1 |

**Suggested Testing Environment:** Control Room

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ☒ No

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

**References:** CPS No. 3304.02 , ROD CONTROL AND INFORMATION SYSTEM (RC&IS), Revision 16d.

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

## Initial Conditions

You are an extra RO on shift. The unit has experienced a trip. The full core display is dead and cannot be used to verify all control rods are fully inserted.

## Initiating Cue

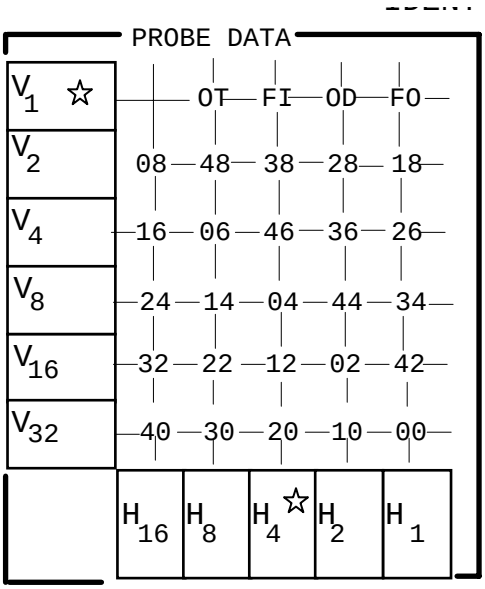
**CAUTION**

- 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.

Using the Identification Generator on either RACCS panels, verify the position of all control rods per CPS No. 3304.02, Rod Control and Information System, section 8.2.11.5. through 8.2.11.5.4)b)

Do not perform 8.2.11.5.4)c)

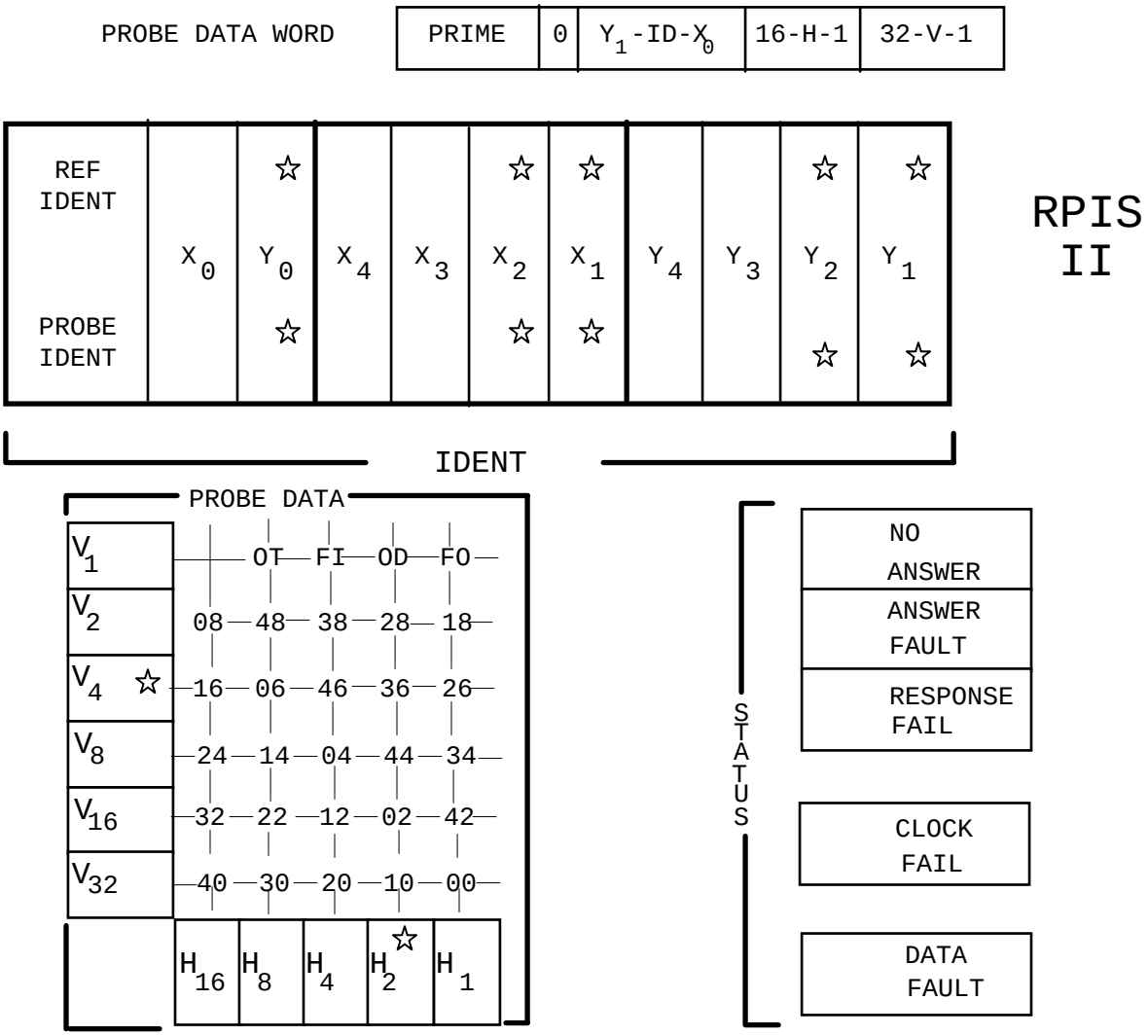
# ATTACHMENT 1




☆ **Indicates LED is LIT**

**Clinton Power Station**
**Job Performance Measure (JPM)**

# ATTACHMENT 2




☆ **Indicates LED is LIT**

Exelon SM
Nuclear

# CLINTON POWER STATION

## Job Performance Measure

Restore ADS Air Supply To Normal Source

JPM Number: 31010107LSN02

Revision Number: 00

Date: 03/14/2007

| | | |
|---|---|---|
| **Developed By:** | **Tom Pickley** | **3/14/07** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**JPM Number:** 31010107LSN02

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| 00 | 03/14/07 | New JPM |
| | | |
| | | |
| | | |

**Clinton Power Station**
**Job Performance Measure (JPM)**

## Simulator Setup Instructions

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

1. Reset the simulator to any full power IC.
2. Place ADS Backup Air Bottles in service IAW 3101.01 Steps 8.2.3.1 through 8.2.3.3.
3. Insert the following instructor overrides and malfunctions:
   a. Fail 1PI-IA079 to 125 psig (0.5) on a 5 minute ramp when 1IA013A is shut.
   b. Fail 1PI-IA078 to 125 psig (0.5) on a 5 minute ramp when 1IA012A is shut.
   c. Delete the 1PI-IA079 (P601) instructor override when 1IA013A is reopened.
   d. Delete the 1PI-IA078 (P601) instructor override when 1IA012A is reopened.
   e. Bring in Annunciator 5040-6F when either 1PI-IA079 or 1PI-IA078 less than 150 psig (0.6).
   f. Clear Annunciator 5040-6F when both 1IA013A and 1IA012A open.
4. This completes the setup for this JPM.

**JPM Number:** 31010107LSN02

**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.

**TASK STANDARDS**:

- The evolution completed IAW CPS No. 3101.01, MAIN STEAM (MS, IS & ADS).

**TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**

- None

**PROCEDURAL/REFERENCES:**

- CPS No. 3101.01, Rev 19d MAIN STEAM (MS, IS & ADS)

**EVALUATOR INSTRUCTIONS:**

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

**INITIAL CONDITIONS:**

You are the B RO. Due to a loss of IA ADS has been placed on the ADS backup air bottles.

**INITIATING CUE:**

IA air supply has been restored. Return ADS to the normal air supply.

**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 3101.01 Placing ADS backup air bottles in service**

---

1 8.2.3.5.1
Place C/S for 1IA012A (13A), ADS IA CNMT Outbd Isol Vlv to CLOSE.

Standard: Locates control switch for 1IA012A and rotates counter clockwise verifying Red light OFF and Green light ON indicating valves are closed.
Locates control switch for 1IA013A and rotates counter clockwise verifying Red light OFF and Green light ON indicating valves are closed.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

2 8.2.3.5.2
Place C/S for 1IA012B (13B), ADS IA CNMT Inbd Isol Vlv to OPEN.

Standard: Locates control switch for 1IA012B and rotates clockwise verifying Red light ON and green light OFF indicating valves are closed.
Locates control switch for 1IA013B and rotates clockwise verifying Red light ON and green light OFF indicating valves are closed.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

3 8.2.3.5.3
Return C/S for 1IA012A (13A) to AUTO.

Standard: Locates control switch for 1IA012A and rotates clockwise to the AUTO position.
Locates control switch for 1IA013A and rotates clockwise to the AUTO position.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

4 8.2.3.5.4
Verify ADS Air Hdr Pressure on 1H13-P601 (1PI-IA078 / 79) is 160 – 170 psig.

Standard: Locates 1PI-IA078 / 79 on 1H13-P601 and determines air pressure is less than 160 psig.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

**Alternate path begins here.**

---

5 Responds to Annunciator 5040-6F High/Low Press ADS IA Supply Div 1 or 2.

Standard: Refers to the ARP.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

| | | |
|---|---|---|
| | ***6** | **8.2.3.1**<br>**Shut 1IA012B, ADS IA CNMT Inbd Isol Vlvs.**<br>**Verify 1IA012A, ADS IA CNMT Outbd Isol Vlvs opens.** |
| Standard: | | Locates control switch for 1IA012B and rotates counter clockwise verifying Red light OFF and Green light ON indicating valve is closed.<br>Locates control switch for 1IA012A verifies Red light ON and Green light OFF indicating valve is open. |
| Cue: | | |
| Comments | | |

SAT ☐ UNSAT ☐ Comment Number _____

| | | |
|---|---|---|
| | ***7** | **8.2.3.2**<br>**Shut 1IA013B, ADS IA CNMT Inbd Isol Vlvs.**<br>**Verify 1IA013A, ADS IA CNMT Outbd Isol Vlvs opens.** |
| Standard: | | Locates control switch for 1IA013B and rotates counter clockwise verifying Red light OFF and Green light ON indicating valve is closed.<br>Locates control switch for 1IA013A verifies Red light ON and Green light OFF indicating valve is open. |
| Cue: | | |
| Comments | | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| 4 | 8.2.3.3<br>Verify (1H13-P601, 5067):<br>o ADS Instrument Air Hdr Pressure, 1PI-IA078/79 > 147.5 psig.<br>o ADS Backup Air Hdr Pressure, 1PI-IA080/81 > 2300 psig. |
| Standard: | Locates 1PI-IA078 / 79 on 1H13-P601 and determines air pressure is greater than 147.5 psig.<br>Locates 1PI-IA080/81 on 1H13-P601 and determines air pressure is greater than 2300 psig. |
| Cue: | |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

**TERMINATING CUES:**

ADS in service being supplied by the Backup Air Bottles IAW CPS No. 3101.01.

**STOP TIME:** _____

**JPM Number:** 31010107LSN02

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: Restore ADS Air Supply To Normal Source

JPM Number: 31010107LSN02 Revision Number:00

Task Number and Title: 310101.08 Complete control room actions to perform placing ADS backup air bottles in service.

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 3000000 | A4.01 | 2.6 | 2.7 |

**Suggested Testing Environment:** Simulator

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ■ No

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

References: CPS No. 3101.01,Rev 19d MAIN STEAM (MS, IS & ADS)

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

## Initial Conditions

You are the B RO. Due to a loss of IA, ADS has been placed on the ADS backup air bottles.

## Initiating Cue

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

IA air supply has been restored. Return ADS to the normal air supply.

Exelon SM
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# CLINTON POWER STATION

## Job Performance Measure

Startup Continuous Containment Purge Unfiltered

JPM Number: 34080149LSN02

Revision Number: 00

Date: 03/14/07

| | | |
|---|---|---|
| **Developed By:** | **Tom Pickley** | **03/14/2007** |
| | **Instructor** | **Date** |
| **Reviewed By:** | **Stacey Hagan** | **6/15/07** |
| | **Operations Representative** | **Date** |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

a. verify cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Revision Record (Summary)

| Revision | Date | Description |
|---|---|---|
| 00 | 03/14/07 | New Revision |
| | | |
| | | |
| | | |

**Clinton Power Station**
**Job Performance Measure (JPM)**

# Simulator Setup Instructions

**(This page is applicable only to JPMs performed in the Simulator.)**

1. Initialize to any suitable IC with Containment Ventilation secured and CCP ready for startup. Override the CCP Joystick in the "Manual" position.

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

2. When the above steps are completed for this and other JPMs to be run concurrently, then validate the concurrently run JPMs if applicable.

3. This completes the setup for this JPM.

**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.

**TASK STANDARDS**:

- CCP is running in the unfiltered mode per CPS No. 3408.01 section 8.2.1.1 revision 16.

**TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:**

- None

**PROCEDURAL/REFERENCES:**

- CPS No. 3408.01, Containment Building/Drywell HVAC revision 16

**EVALUATOR INSTRUCTIONS:**

- Amplifying cues are provided within the JPM steps.
- 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:**

You are the B RO.

Containment Ventilation has been secured per CPS 3408.01, Section 8.1.3.

There are no isolation signals present.

ITS Bases for SR 3.6.5.3.2 has been evaluated.

Radiation Protection has been notified.

Containment temperatures are rising requiring CCP to be started.

**INITIATING CUE:**

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

You are directed to startup Continuous Containment Purge in the Unfiltered Mode Automatic per CPS 3408.01 section 8.1.1.1. Use the "A" fans. Report 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**

8.1.1.1 Startup Continuous Containment Purge Unfiltered (Auto)

.1 Check that the Containment Building/Drywell HVAC System is stopped per section 8.1.3 or 8.2.2 of this procedure.

Standard: No action necessary. Addressed in initial conditions.

Cue: None necessary

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

.2 Verify no isolation signals are present, or reset per section 8.3.1

Standard: No action necessary. Addressed in initial conditions.

Cue: None necessary

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

| | |
|---|---|
| 3 | During Modes 1, 2, or 3, verify the following are closed:<br>1) 1VR001A CNMT BLDG SPLY OUT BD ISOL VLV,<br>2) 1VR001B CNMT BLDG SPLY IN BD ISOL VLV,<br>3) 1VQ004A CNMT BLDG EXH/PRG OUTBD ISOL VLV,<br>4) 1VQ004B CNMT BLDG EXH/PRG INBD ISOL VLV,<br>5) 1VR002A CNMT BLDG SPLY OUTBD ISOL BYP VLV,<br>6) 1VR002B CNMT BLDG SPLY INBD ISOL BYP VLV,<br>7) 1VQ006A CNMT BLDG EXH OUTBD ISOL BYP VLV,<br>8) 1VQ006B CNMT BLDG EXH INBD ISOL BYP VLV,<br>9) 1VQ002 DW PRG INBD ISL VLV,<br>10) 1VQ005 DW HD PRG EXH ISOL VLV<br>11) Document verification in the Auto Log. |
| Standard: | Operator verifies that all valves are closed GREEN lights ON and RED lights OFF. |
| Cue: | CRS will document in the Autolog. |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| 4. | Verify/Place C/S In AUTO after close:<br>[1H13-P800 Section 5043]:<br>1) CNMT BLDG SPLY OUTBD ISOL VLV, 1VR006A.<br>2) CNMT BLDG SPLY INBD ISOL VLV, 1VR006B.<br>3) CNMT BLDG EXH/PRG INBD ISOL VLV, 1VR007B.<br>4) CNMT BLDG EXH/PRG OUTBD ISOL VLV, 1VR007A. |
| Standard: | Operator verifies/places C/S In AUTO after close for each valve. |
| Cue: | |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| ***5.** | **Place the control switch for 1VQ003 DW PRG CNMT EXH INBD ISOL VLV in the OPEN position.**<br>**1) Check that 1VQ003 DW PRG CNMT EXH INBD ISOL VLV fully opens.** |
| Standard: | The operator places control switch for 1VQ003 to OPEN. Observes RED light is ON and GREEN light is OFF. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| 6. | Place CNMT BLDG SPLY FAN 1VR06CA/CB SELECTOR switch to 06CA LEAD or 06CB LEAD. |
| Standard: | The operator places/verifies the selector switch to the 06CA LEAD position. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| 7. | Place CNMT BLDG EXH FAN 1VR07CA/CB SELECTOR switch to 07CA LEAD or 07CB LEAD. |
| Standard: | The operator places/verifies the selector switch to the 07CA LEAD position. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| 8. | Place the CNMT CONTINUOUS PRG MODE switch in UNFILT. |
| Standard: | The operator places the CNMT CONTINUOUS PRG MODE switch in UNFILT.<br>The operator determines that the Auto Mode is not working |
| Cue: | If asked for direction, ask the operator for a recommendation. |
| Comments | The operator should recommend and proceed to the "Manual" Startup Section 8.2.1.1. |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

8.2.1.1 Startup Continuous Containment Purge Unfiltered (Manual Operation)

| | |
|---|---|
| ***9.** | **Place the CNMT CONTINUOUS PRG MODE switch in MANUAL.** |
| Standard: | The operator places the CNMT CONTINUOUS PRG MODE switch in MANUAL. |
| Cue: | |
| Comments | The Manual startup repeats the previously performed steps. The operator just needs to ensure they have been performed. |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| ***10.** | **Open CNMT BLDG SPLY OUTBD ISOL VLV 1VR006A.** |
| Standard: | The operator places the Control Switch for CNMT BLDG SPLY OUTBD ISOL VLV, 1VR006A to OPEN. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| ***11.** | **Open CNMT BLDG SPLY INBD ISOL VLV 1VR006B.** |
| Standard: | The operator places the Control Switch for CNMT BLDG SPLY INBD ISOL VLV, 1VR006B to OPEN. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| ***12.** | **Open CNMT BLDG EXH/PRG INBD ISOL VLV 1VR007B.** |
| Standard: | The operator places the Control Switch for CNMT BLDG EXH/PRG INBD ISOL VLV, 1VR007B to OPEN. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| ***13.** | **Open CNMT BLDG EXH/PRG OUTBD ISOL VLV 1VR007A.** |
| Standard: | The operator places the Control Switch for CNMT BLDG EXH/PRG OUTBD ISOL VLV, 1VR007A to OPEN. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| ***14.** | **Open HVAC STACK INLET VLV 1VR010.** |
| Standard: | The operator places the Control Switch for HVAC STACK INLET VLV, 1VR010 to OPEN. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| ***15.** | **Start CNMT BLDG EXH FAN, 1VR07CA.** |
| Standard: | The operator places the Control Switch for CNMT BLDG EXH FAN, 1VR07CA to START. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| 16. | Verify CNMT BLDG EXH FAN ISOL VLV, 1VR009A (1VR009B) opens. |
| Standard: | The operator verifies that CNMT BLDG EXH FAN ISOL VLV, 1VR009A opens, RED light ON and GREEN light OFF. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| ***17.** | **Start CNMT BLDG SPLY FAN 1VR06CA.** |
| Standard: | The operator places the Control Switch for CNMT BLDG SPLY FAN 1VR06CA to START. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| 18. | Verify CNMT BLDG OUTSIDE AIR SPLY INLT VLV 1VR005 opens. |
| Standard: | The operator verifies that CNMT BLDG OUTSIDE AIR SPLY INLT VLV, 1VR005 opens, RED light ON and GREEN light OFF. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| 19. | Verify CNMT BLDG SPLY FAN ISOL VLV 1VR004A opens. |
| Standard: | The operator verifies that CNMT BLDG SPLY FAN ISOL VLV, 1VR004A opens, RED light ON and GREEN light OFF. |
| Cue: | |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

| | |
|---|---|
| 20. | If outside temperature is less than 65°F, Verify on/turn on CCP Heating Coil 1VR05A at CCP Local Control Panel 1PL17J. |
| Standard: | No action is necessary, outside temperature is 73°F. |
| Cue: | AR/PR or Met Tower indicates outside air temperature is 73°F. |
| Comments | |

SAT ☐ UNSAT ☐ Comment Number _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

| | |
|---|---|
| 21. | At the CCP local control panel, 1PL17J, start/verify running Transfer Fan 1VR12C. |
| Standard: | The operator directs the plant operator to report on the Transfer Fan status. |
| Cue: | Field operator reports Transfer Fan 1VR12C is running. |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| 22. | Check that Primary Containment to Secondary Containment differential pressure stabilizes between –0.25 and +0.25 psid. |
| Standard: | Operator verifies that pressure stabilizes between –0.25 and +0.25 psid by having area operator check local panels 0PL39JA and 0PL39JB locate on 719’ el. Control Bldg. |
| Cue: | As area operator report that pressure has stabilized at –0.20 psid |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| 23. | Check that Drywell to Primary Containment differential pressure stabilizes between -0.2 and +1.0 psid. |
| Standard: | Operator describes process of verifying that pressure stabilizes between –0.2 and +1.0 psid by comparing Drywell Pressure to ATMs 1E12-N662A, B, C, D, Containment Pressure. |
| Cue: | Containment Pressure read at ATM is 0.0 psig. |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

| | |
|---|---|
| 24. | Reports to the CRS that CCP is in the Unfiltered Mode. |
| Standard: | CCP is running in the unfiltered mode. |
| Cue: | |
| Comments | |
| | SAT ☐ UNSAT ☐ Comment Number _____ |

**TERMINATING CUES:**

Continuous Containment Purge is running in the Unfiltered Mode.

**STOP TIME:** _____

**Clinton Power Station**
**Job Performance Measure (JPM)**

Operator's Name: _____

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

JPM Title: Startup Continuous Containment Purge Unfiltered-Automatic

JPM Number: 34080149LSN01 Revision Number: 00

Task Number and Title: 340801.49, Complete Control Room actions to Startup Continuous Containment Purge Unfiltered Mode (Manual) of the Containment Building/Drywell HVAC System.

| K/A System | K/A Number | Importance (RO/SRO) | |
|---|---|---|---|
| 288000 | A4.01 | 3.1 | 2.9 |
| | | | |

**Suggested Testing Environment:** Simulator,

**Actual Testing Environment:** ☐ Simulator ☐ Plant ☐ Control Room

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

**Time Critical:** ☐ Yes ☐ No

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

References: CPS No. 3408.01, Containment Building/Drywell HVAC revision 16a.

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

## Initial Conditions

You are the B RO.

Containment Ventilation has been secured per CPS 3408.01, Section 8.1.3.

There are no isolation signals present.

ITS Bases for SR 3.6.5.3.2 has been evaluated.

Radiation Protection has been notified.

Containment temperatures are rising requiring CCP to be started.

## Initiating Cue

**CAUTION**

- All pre-job briefings are completed.
- Do NOT shine any type light into a panel.

You are directed to startup Continuous Containment Purge in the Unfiltered Mode Automatic per CPS 3408.01 section 8.1.1.1. Use the "A" fans. Report when the task is complete.