INITIAL SUBMITTAL OF THE ADMINISTRATIVE JPMS

FOR THE CLINTON INITIAL EXAMINATION - JULY/AUG 2002

Facility: Clinton Power Station Date of Examination: 7/29/2002

Examination Level (circle one): RO / SRO Operating Test Number: **ILT0101-1**

	Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations Procedure Limitations	JPM - Perform PMT startup of SX pump, Fails to Start on First Attempt, Starts on Second Attempt (faulted) K/A 2.1.32 Imp 3.4
	Conduct of Operations Shift Turnover	JPM - Perform a MCR Panel Walkdown. K/A 2.1.33 Imp 3.4
A.2	Equipment Control Tagging and Clearances	JPM - Remove an Annunciator from Service. K/A 2.2.11 Imp 2.5
A.3	Radiation Control Control of Radiation Release	JPM - Respond to a VC Hi Radiation alarm, VC fails to shift to Hi Radiation Mode (faulted). K/A 2.3.10 Imp 2.9
A.4	Emergency Plan Emergency Communications	JPM - Make a Plant Announcement for FIRE in the Paint and Oil Storage Room with Area Evacuation. K/A 2.4.43 Imp 2.8

CX2 Staples

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.1.a 1

Revision Number: 00

Date: 4/11/2002

Developed By:	**D. Antonelli**	**4/11/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: RO A.1.a 1 **REVISION: 00**

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: RO A.1.a 1 **REVISION: 00**

Revision Record (Summary)

1. **Revision 00,** This is a new JPM

JPM NUMBER: RO A.1.a 1 **REVISION: 00**

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

JPM Title: START OF SX PUMP FOR PMT
Number: RO A.1a 1
Revision Number: 00
Task Number and Title: Ability to explain and apply system limits and precautions

K/A Number: 2.1.32 Importance: RO 3.4 SRO 3.8

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References: CPS No. 9069.01 R42, SHUTDOWN SERVICE WATER OPERABILITY TEST
CPS No. 3211.01 R21d, SHUTDOWN SERVICE WATER (SX)

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: RO A.1.a 1 **REVISION: 00**

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 the simulator **IC** with the plant in Mode 1. (IC-1)
- Call Up Div 3 ECCS Panel Section and locate SSW Pump 1C.
- Call up IO Menu for SSW Pump Control Switch.
- ACTIVATE: TRUE for SSW Pump 1C SX01PC- AUTO_AFT_STOP.
- Observe pump outlined in RED and verify by turning the SSW Pump Control Switch to START that it is disabled.
- Open the list of ACTIVE IOs to allow prompt clearing of "SSW Pump 1C SX01PC-AUTO_AFT TRUE" when cued by the floor examiner.

TASK STANDARDS:

- Correctly applied SSW Pump 1C Motor Restart Requirements of CPS No. 3211.01.
- SSW Pump 1C operating.
- Demonstrate use of Core Work Practices.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS No. 3211.01 Shutdown Service Water (SX)
CPS No.9069.01 Shutdown Service Water Operability Test

EVALUATOR INSTRUCTIONS:

- Evaluator provide a marked up copy of CPS No. 9069.01
- Amplifying cues are provided within the JPM steps.

JPM NUMBER: RO A.1.a 1 **REVISION: 00**

INITIAL CONDITIONS AND INITIATING CUE:

1) Examinee is an extra CRO assigned to the MCR to support the resumption of PMT for SSW Pump 1C using CPS No. 9069.01 following the completion of a plant modification.

2) The plant is in Mode 1.

3) CPS No. 9069.01 is in progress for SSW Pump 1C. The Status of the test that is turned over to you is as follows:

   a) The SX Pump was started as required by Step 8.5.3 when the System Engineer discovered that a special instrument used to measure starting currents was not properly positioned. And, the Engineer requested that the test be stop and conditions restored to the test procedure prerequisites as delineated in Section 8.6. The pump had operated for approximately 30 minutes.

   b) Restoration per Section 8.6 has been completed and the steps in Prerequisite Section 5.0 were re-verified.

   c) System Engineer has people stationed to operate stopwatches and to collect the required data of Step 8.5.4. The current measuring instrumentation placement has been verified correct. An M&TE gauge is being used in place of 1FI-SX232 as permitted by Step 5.8.

   d) The CRS has directed you to recommence the test in accordance with CPS No. 9069.01 Step 8.5 for SSW Pump 1C. It has been 30 minutes since SSW Pump 1C was secured.

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

8.5 SX DIV 3 OPERABILITY 9069.01

8.5.1 Verify upper motor oil reservoir oil level for 1SX01PC at mark on sight glass (MS-08 criteria)

Standard	Directs the area operator to verify upper motor oil reservoir oil level for 1SX01PC at mark on sight glass.
CUE	Area operator reports oil level is at the mark on the sight glass.
Comments	Examinee initials the step.
	SAT UNSAT Comment Number

8.5.2 Place SSW SYS DIV 3 IN TEST switch in TEST.
1. Verify SX D3 MOVS IN TEST status light energizes.
2. Verify NOT AVAILABLE SSW SYSTEM DIVISION 3 annunciator (5064-2A) alarms, unless already in due to plant conditions.

Standard	SSW SYS DIV 3 IN TEST switch is placed in TEST.
CUE	System Engineer reports all data takers are ready to gather data.
Comments	Observe verification of status light engergized and alarm 5064-2A. Examinee initials the step.
	SAT UNSAT Comment Number

8.5.3 Momentarily place 1SX01PC control switch to start.

Standard — Momentarily places 1SX01PC control switch to start and verifies failure to start. CRO reports failure to start.

CUE — CRS acknowledges the failure to start and instructs the CRO to suspend testing.
Cue simulator operator to delete the "SSW Pump 1C SX01PC-AUTO_AFT TRUE" override from the ACTIVE FILE.

Comments

SAT UNSAT Comment Number

6.0 SHUTDOWN SERVICE WATER (SX) 3211.01

6.8 SX Pump Motor Restart Requirements:

a) With the windings at ambient temperature, the motor can be started and brought to speed two times in succession, coasting to rest between stops.
b) With the windings at operating temperature, the motor can be started and brought to speed once.
c) If the motor has been started once from operating temperature, restart may be attempted after the following time constraints. The motor windings can be assumed to have returned to operating temperature after 60 minutes de-energized or after 30 minutes running at operating speed. More frequent starts may cause damage to motor windings. Consult the technical manual or the motor supplier.

Standard — ***CRO concludes that failure does NOT count as start for starting duty purposes. (No current flow, no trip light).**

CUE — As CRS, direct the pump control switch to after-stop to support troubleshooting.
As CRS, tell examinee that the current measuring instrumentation had intefered with the closing contactor and that has now been corrected.
As CRS, cue the examinee to evaluate the failure as to whether the "motor restart limitations" would preclude another start attempt at this time.
Verify that simulator operator has cleared the Override on SSW Pump 1C.
After the CRO evaluation and verification of Override cleared, as CRS, direct the examinee to recommence testing by re-attempting the pump start.

Comments

SAT UNSAT Comment Number

JPM NUMBER: RO A.1.a 1 **REVISION: 00**

8.5 SX DIV 3 OPERABILITY 9069.01

*8.5.3 **Momentarily place 1SX01PC control switch to start.**

Standard: Momentarily places 1SX01PC control switch to start, releases switch and verifies successful start of SSW Pmp Rm 1C.

CUE: CRS acknowledges successful start.
CRS states that Step 8.5.4 is being performed locally by Test Engineer and support staff, and that actual stroke times will be brought to the MCR after the test.

Comments: Examinee initials step 8.5.3 and leaves 8.5.4 blank.

SAT UNSAT Comment Number

8.5.5 Verify SSW Pmp Rm 1C Sply Fan, 1VH01CC has started (1H13-P-P800).

Standard: CRO locates and verifies that SSW Pmp Rm 1C Sply Fan, 1VH01CC is operating.

CUE: Declare this JPM complete.

Comments: Examinee initials 8.5.5 unless JPM is terminated prior to examinee having an opportunity to initial the step.

SAT UNSAT Comment Number

TERMINATING CUES:

SSW Pump 1SX01PC has been started and the SSW Pump Room 1C Supply Fan, 1VH01CC operation has been verified.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Generic	2.1.32	3.4	3.8

JPM NUMBER: RO A.1.a 1 **REVISION: 00**

INITIATING CUE

1) Examinee is an extra CRO assigned to the MCR to support the resumption of PMT for SSW Pump 1C using CPS No. 9069.01 following the completion of a plant modification.

2) The plant is in Mode 1.

3) CPS No. 9069.01 is in progress for SSW Pump 1C. The Status of the test that is turned over to you is as follows:

   a) The SX Pump was started as required by Step 8.5.3 when the System Engineer discovered that a special instrument used to measure starting currents was not properly positioned. And, the Engineer requested that the test be stop and conditions restored to the test procedure prerequisites as delineated in Section 8.6. The pump had operated for approximately 30 minutes.

   b) Restoration per Section 8.6 has been completed and the steps in Prerequisite Section 5.0 were re-verified.

   c) System Engineer has people stationed to operate stopwatches and to collect the required data of Step 8.5.4. The current measuring instrumentation placement has been verified correct. An M&TE gauge is being used in place of 1FI-SX232 as permitted by Step 5.8.

   d) The CRS has directed you to recommence the test in accordance with CPS No. 9069.01 Step 8.5 for SSW Pump 1C. It has been 30 minutes since SSW Pump 1C was secured.

Prop

SHUTDOWN SERVICE WATER OPERABILITY TEST

SCOPE OF REVISION:

- Major revision - rev marks not used, technical content not changed.
- Periodic review and format update per CPS 1005.00/01/02 criteria, including incorporation of Specific Rev. 41a.
- RF-6/7 Operations/Procedures Self-Assessment item: Inconsistency in similar surveillance's - updated for consistency in level of detail, layout, and application.
- 5.8: Action to place Flow Test Inst in-service deferred to actual point of use to minimize Confined Space Entries (ATI 00401559-12-04).
- 9.0: ISI acceptance criteria text enhanced per CR1-99-09-064 resolution using approved text changes found in similar procedures.

CONTINUOUS USE

ORIGINATOR: *Thomas J. Landin* **CLASS CODE:** *SNNI*

ITR: *Ken Sheffield* **APPROVAL DATE:** *May 25 2001*

CURRENT CHANGES TO GENERAL REVISION

	Change #	*Date*	*List of Affected Pages*
❶			
❷			
❸			
❹			
❺			

1.0 **PURPOSE**

Verify operability of Shutdown Service Water (SX) System Pumps, 1SX01PA (B) & [C], and selected valves per:

Pump Test: ISI Appendix XI, Table I (3 month)

Exercise: ISI Appendix XI, Table II (3 month)

Stroke Time (Exercise, Loss of Power):
ISI Appendix XI, Table II (3 month)

Position Indication: ISI Appendix XI, Table II (2 years)

ORM TR 4.5.2.2 MOV Thermal O/L Protection Byp

2.0 **DISCUSSION/DEFINITIONS**

2.1 **Discussion**

2.1.1 Frequency *«LBD-1, LBD-2, LBD-3»*

1. Normal Frequency
   1) Quarterly
   2) Position Indication - 2 years

2. Other Triggers -
   1) Prior to returning a valve to service after maintenance, repair, or replacement work is performed on the valve or its associated actuator, control or power circuit.
   2) Prior to returning a pump to service after maintenance, repair or replacement work is performed on the pump or its motor.

2.1.2 This surveillance strokes and/or exercises:

1SX010A(B)[C], SX Pump A(B)[C] Room Area Cooler Outlet
1SX014A(B)[C], PSW To SSW 1A(1B)[1C] Hdr Isol Vlv
1SX063A(B), SX Pmp Min Flow DG 1A(B) Hx Outlet Vlv
1SX013D(E), SSW Strainer 1A(B) Backwash Valve
[timed in the OPEN direction only -
new minimum flow valves for 1SX01PA(B)]
1SX006C, DG 1C Hx Outlet Valve
1SX001A(B)[C], 1SX01PA(B)[C] Disch Check Vlv

This procedure partially satisfies OPEN exercise, and fully satisfies CLOSED function of the Pump Discharge Check Valves.

1SX013F, SSW Strainer 1C Backwash Valve
(timed in both directions)
1SX001A(B)[C], 1SX01PA(B)[C] Discharge Check Valves

2.0 **DISCUSSION/DEFINITIONS** (cont'd)

2.1.3 ISI vibration readings shall be taken at each marked ISI unique point designation (VM1, HM1, AM1).

2.1.4 Pump operating parameters shall be stabilized for at least 2 minutes before recording data.

2.1.5 The ISI Loss of Power Test requirements are satisfied for valve 1SX010A(B)[C] by verifying that the valve opens when the fan is started.

2.1.6 Position indication testing is satisfied with an operator at the valve to verify actual valve position against remote indication, except where noted otherwise.

2.1.7 Individual sections or an individual step or individual steps within a section of this procedure may be performed independently for PMT or other maintenance activities.

Those steps within a section that are not performed should be marked N/A.

When only parts of a section are performed, it is the responsibility of the SMngt and the performer to ensure that all necessary prerequisites, precautions and limitations are met for those steps that will be performed.

Additionally, the impact of NOT performing the remaining steps must also be understood.

2.1.8 This procedure may be used to establish the required valve positions for performance of CPS 9381.01, MOV Thermal Overload Bypass Verification.

2.2 **Definitions**

2.2.1 Cycle - For a valve that is closed, take the valve to the full open position and then return the valve to its full closed position. For a valve that is open, take the valve to the full closed position and then return the valve to its full open position.

2.2.2 Stroke Time - Control switch actuation to receipt of the desired position indication (unless otherwise specified within procedure).

2.2.3 MSL - Mean Sea Level

2.2.4 Continuous Throttling - The state of a valve such that it is stopped (not moving) in a position other than full open or full closed.

2.2.5 Suction Lift - Suction lift is the calculated suction value determined by subtracting the actual Lake Level from the Elevation at the center-line of the SX PUMP suction gauges and multiplying this result times a constant (0.43).

3.0 **RESPONSIBILITY**

Operations Department Head shall be responsible for the implementation of this procedure.

4.0 **PRECAUTIONS**

4.1 It may be desirable, periodically during long pump runs, to perform a backwash per CPS 3211.01, Shutdown Service Water (SX), Section "Strainer Manual Backwash" as the 7 hour timer has been removed from the circuit.

Backwash activity should be avoided during actual pump flow test as drain flow bypasses the venturi flow element.

4.2 Prior to performing SX system recovery action steps in section 8.2 or 8.4:

Due to the system pressure drops which occur during test recovery resulting in equipment tripping, WS/SX operational loads (e.g., MCR HVAC system chiller, VP chiller) should be removed from the division being recovered by either switching the loads to the division not being tested, or by securing the loads not needed to support plant conditions.

5.0 **PREREQUISITES** Initial

5.1 In conjunction with the SMngt, review the following impact statements to determine required plant status to perform this test:

OPERABILITY IMPACT:

ITS LCO 3.7.1/2: SX Operability
ORM OR 2.5.2: MOV Thermal Overload Protection

SYSTEM IMPACT:

Affected Annunciators and Computer Points

5064-8G(5085-8B): RHR A(B) OUT OF SERVICE

5064-2C(5065-2F)[5064-2A]: NOT AVAILABLE SSW SYSTEM DIV 1(2)[3]

RPS Trip: N/A CRVICS Isolation: N/A

Other Systems Affected: WS/SX loads (e.g., MCR HVAC system chiller, VP chiller) - see Precaution 4.2.

REQUIRED OPERABLE CHANNELS: N/A

PLANT/SYSTEM CONDITIONS
REQUIRED TO CONDUCT THIS TEST: N/A

COINCIDENT CHANNELS THAT PREVENT ACTUATION: N/A

Impact Matrix discussed.

SMngt / Performer

5.0 **PREREQUISITES** (cont'd) Initial

5.2 Obtain SMngt permission to perform this procedure. X/Y/Z XX:XX (Date / Time) SMngt

5.3 Check the calibration due date of test equipment to be used to ensure that calibration is up-to-date.

5.4 Verify SX System being tested is in STANDBY:

1. Verify open 1SX014A(B)[C], PSW To SSW 1A(B)[C] Isol Vlv.
2. Verify 1SX01PA(B)[C] control switch in AUTO.

5.5 Establish communications between the persons performing this surveillance.

5.6 Ensure 1WS067A(B), DW Chiller Hx A(B) TRV Bypass can be placed in-service [Div 1(2) tests only]. NA

5.7 Verify Confined Space Entry Permit authorized for entry to SX pipe tunnel.

0 5.8 1FI-SX230(231)[232], SX HDR 1A(1B)[1C] are placed in-service in Steps 8.1.9.5(8.3.9.5)[8.5.12].

Due to silting problems, request I&C support to perform valve manipulations using CPS 8801.12, Local Mounted Instrument Valve Operation And Venting, and copiously vent high and low side instrument lines with equalizing valve open. SV (I&C)

IF Flow instrument above is not available,

THEN An equivalent M&TE gauge shall be installed & placed in service per an AR.

The AR number and M&TE data shall be recorded in the remarks section.

Any subsequent steps referring to the flow instrument from step 5.8 should be performed using the temp installed gauge and jobsteps of the AR with which it was installed. NA

6.0 **LIMITATIONS**

IF An automatic initiation of SX occurs, «LBD-1»

THEN
1. Terminate the performance of this procedure.
2. Return all SX MOV TEST PREP switches to NORMAL.
3. Return all valves currently under test to the pretest position unless required to be open.

6.2 Motor operated valves (MOV's) that have been cycled full stroke (open to close to open, etc.) 3 consecutive times should have a 15 minute cooling off period.

This will prevent motor degradation caused by overheating.

7.0 **MATERIALS/TEST EQUIPMENT** Initial

7.1 (Record) Stopwatch (3)
[Range: 0 - 40 min, Accuracy: ± 0.10 sec/40 min, Minor Divisions: N/A; or equivalent stopwatch.]

7.2 (Record) Vibration meter and sensor(s)
[Range: 4.5hz - 1000hz, Accuracy: ± 5%, Minor Divisions: N/A; or equivalent meter/sensor.]

☞ Equipment shall not be tested unless it is listed on the vibration meter instrument menu.

8.0 **PROCEDURE** Initial

8.1 **SX DIV 1 OPERABILITY**

8.1.1 Verify upper motor oil reservoir oil level for 1SX01PA at mark on sight glass (MS-08 criteria). _____

8.1.2 **IF** Desired (optional, not required until 8.2.1),

THEN For the Division 1 WS/SX operational loads (e.g., MCR HVAC system chiller, VP chiller):

1. Switch the WS/SX loads to Division 2, _____

OR

2. Secure the Division 1 loads not needed to support plant conditions. _____

8.1.3 Place SSW DIV 1 MOV TEST PREP switch in TEST. _____

1. Verify SX D1 MOVS IN TEST status light energizes. _____
2. Verify NOT AVAILABLE SSW SYSTEM DIVISION 1 annunciator (5064-2C) alarms, unless already in due to plant conditions. _____

8.1.4 Place RHR A MOV TEST PREP switch in TEST. _____

1. Verify RHR A MOVS IN TEST status light energizes. _____
2. Verify RHR A OUT OF SERVICE annunciator (5064-8G) alarms, unless already in due to plant conditions. _____

NOTE

Two new minimum flow valves are provided to ensure minimum pump flow:
1SX013D, SSW Strainer 1A Backwash Valve and
1SX063A, SX Pmp Min Flow DG 1A Hx Outlet Vlv.

Stopwatches are required prior to step 8.1.6.

Start timing 1SX063A, 1SX013D & 1SX014A when 1SX01PA control switch is placed to start.

Timing of 1SX013D: Since there is no position indication in the Control Room of 1SX013D, an operator is required to be stationed locally at the valve to time the valve from time of pump start to full open position of 1SX013D.

8.1.5 Momentarily place 1SX01PA control switch to START. _____

8.1 **SX DIV 1 OPERABILITY** (cont'd) Initial

8.1.6 Timing 1SX014A/1SX063A/1SX013D

1. (Record) Time shut 1SX014A, PSW To SSW 1A Hdr Isol Vlv. _____

2. (Record) Time open 1SX063A, SX Pmp Min Flow DG 1A Hx Outlet Vlv. _____

NOTE

SSW Strainer 1A Basket Motor (1SX021FA) no longer starts with pump start. Basket motor initiates on ΔP only.

1SX013D is timed from local position indicator instead of MCC bucket to ensure valve travels full stroke.

3. (Record) Time open 1SX013D, SSW Strainer 1A Backwash Valve. _____

8.1.7 Verify SSW Pmp Rm 1A Sply Fan, 1VH01CA has started (1H13-P801). _____

NOTE

1SX010A may be stroked by placing handswitch for 1VH01CA to start. See section 8.7.

8.1.8 (Local) Perform the following:

1. (Record) By observing stem movement:
   Time open 1SX010A, SX Outlet SX Pump Rm 1A EAC Vlv. _____

2. Verify a stream of water issuing from the stuffing box leak-off at the motor base. (~ a pencil sized stream of water or larger) _____

   ☞ Proper leakoff is essential to ensure cooling of the packing.

   An AR should be generated if leakoff is smaller than described or absent.

8.1 **SX DIV 1 OPERABILITY** (cont'd) Initial

NOTE

Required flow shall be established by:

Placing flow through RHR 1A Hx,
verifying 1SX063A, SX Pmp Min Flow DG 1A Hx Outlet Vlv is open, and
by continuously throttling flow through DW Chiller Heat Exchanger A (1VP04CA) as needed.

8.1.9 **1SX01PA Pump Operability-Pump Flow Setup**

1. Shut 1SX082A, RHR A Hx MU Cond Inlet Vlv. _____

NOTE

If the RHR Hx is not being used for SDC or Suppression Pool Cooling, (i.e. no load on the shell side of the heat exchanger), then the tube side and shell side temperatures are allowed to decrease to 32 °F. «CM-3»

2. Place/verify flow through RHR Hx 1A with the following valve arrangement:
   1) 1E12-F014A, SSW Inlet RHR A Hx Valve OPEN _____
   2) 1E12-F068A, RHR Hx A SSW Outlet Valve OPEN _____

NOTE

1SX013D is required to be closed for the Pump Operability test as this flow bypasses the flow venturi. The following step requires declaring a short term LCO for inoperative 1SX013D.

3. At SSW MCC 1A-1D, place 1SX013D breaker to OFF. CV ____/____

4. Manually shut 1SX013D by engaging manual hand lever and turning handwheel. _____

5. With flow established though RHR Hx 1A and 1SX063A, SX Pmp Min Flow DG 1A Hx Outlet Vlv,

   Place 1FI-SX230, SX Hdr 1A Flow Test Inst in-service as follows: (refer to 5.8 also)

   ☞ This step is performed at this point to coordinate flow measuring steps and prevent over-ranging gage. Total system flow is expected to be ~ 9,500 - 11,000 gpm at this point.

   1) Slowly open 1FI-SX230LSI. _____
   2) Slowly open 1FI-SX230HSI. _____
   3) Slowly shut 1FI-SX230EV. _____

6. If required, continuously throttle using 1WS067A, DW Chiller Hx A TRV Bypass as necessary to obtain a flow of ≥ 30" H_2O as indicated on 1FI-SX230. _____

8.1 **SX DIV 1 OPERABILITY** (cont'd) Initial

8.1.10 (Record) After the pump has run for a minimum of 2 minutes, and conditions have stabilized, record:

1. Flow (in. H_2O) indicated on 1FI-SX230. _____

☞ Flow in the acceptable range (29.75 to 30.25" H_2O) satisfies "partial" open exercise for 1SX001A, Discharge Check Valve. *«CM-1»*

2. Obtain 1SX01PA vibration (VM1, HM1, AM1) readings at each specifically marked cable [preferred](bottom of the motor) or marked location [alternate](near upper motor bearing). _____

NOTE

If desired, to save a trip into SX pipe tunnel later, 1FI-SX230 may be isolated at this time per step 8.2.2 or wait until restoration section.

8.1.11 (Record) Record SX Pump 1A discharge pressure from locally mounted pressure indicator, 1PI-SX016. _____

NOTE

Contact Security to gain access to the Clinton Lake level indicator.

8.1.12 (Record) Record screenhouse lake level indication. _____

8.1.13 (Calculate) After data collection is completed, calculate and record following values:

☞ This step may be deferred while recovering, but final acceptance results will not be available until the calculations are completed.

1. Pump Flow. _____

2. Suction Lift Pressure. _____

3. Pump Differential Pressure. _____

8.2 **TEST RECOVERY 'A' PUMP** Initial

8.2.1 Due to the system pressure drops which occur during test recovery resulting in equipment tripping:

IF Not already performed in step 8.1.2,

THEN For the Division 1 WS/SX operational loads (e.g., MCR HVAC system chiller, VP chiller):

1. Switch the WS/SX loads to Division 2, _____

OR

2. Secure the Division 1 loads not needed to support plant conditions. _____

8.2.2 Remove 1FI-SX230, SX Hdr 1A Flow Test Inst from service as follows:

1. Slowly shut 1FI-SX230HSI. **IV** ____/____
2. Slowly shut 1FI-SX230LSI. **IV** ____/____
3. Slowly open 1FI-SX230EV. **IV** ____/____

8.2.3 Return the following to the pre-test position:

1. Return 1WS067A, DW Chiller Hx A TRV Bypass to pretest position. **IV** ____/____

NOTE

This is a plug valve, do not attempt to backseat.

2. Manually open 1SX013D. _____
   1) Place SSW MCC 1A-1D 1SX013D bkr to ON. **IV** ____/____
   2) Verify 1SX013D remains OPEN. _____
   3) **IF** Not being used for Shutdown Cooling,
      THEN Isolate flow through RHR Hx 1A:
      a) Shut 1E12-F068A, RHR Hx A SSW Outlet Valve. _____
      b) Wait ~ 15 - 20 seconds after initiating close signal for 1E12-F068A,
         Then shut 1E12-F014A, SSW Inlet RHR 1A Hx Valve. _____
   4) **IF** Div 1 DG is in service or being cooled down,
      THEN Wait for the activity to complete prior to commencing the following step.

8.2 **TEST RECOVERY 'A' PUMP** (cont'd) Initial

8.2.4 Place & hold 1SX014A control switch to OPEN.

Immediately place & hold 1SX01PA C/S to STOP.

When the valve indicates open, release the pump & valve C/S's. IV ___/___

1. Verify SSW Pmp Rm 1A Sply Fan, 1VH01CA stops (1H13-P801). ___
2. (Local) Verify shut 1SX010A, SX Outlet SX Pump Rm 1A EAC Vlv. ___
3. (Local) Verify 1SX013D stroked closed. ___
4. If not being used to support DG run or cooldown, Shut 1SX063A. ___

NOTE

Following steps allows restoring from short term LCO for inoperative 1SX013D.

5. (Local) Place Backwash Control Switch to START. ___
6. (Record) Time open 1SX013D, SSW Strainer 1A Backwash Valve. ___
7. (Local) Place Backwash Control Switch to AUTO. ___
8. (Local) Verify 1SX013D stroked closed. ___

8.2.5 **IF** 1SX014A did not open, **THEN**:

1. At SSW MCC 1A-2A, open 1SX014A valve breaker. ___
2. Open 1SX014A manually until the pressure between SX & WS is equalized; not to exceed 25% open while initially pressurizing. ___

   IF Unable to approach WS system pressure,

   THEN Manually open 1SX014A no more than 50% to reach desired pressure. ___
3. Place and hold 1SX014A control switch in OPEN. ___
4. Place and hold 1SX01PA control switch in STOP. ___
5. At SSW MCC 1A-2A, close 1SX014A valve breaker. ___
6. When 1SX014A indicates open,
   1) Release 1SX014A control switch. ___
   2) Release 1SX01PA control switch. ___

8.2 **TEST RECOVERY 'A' PUMP** (cont'd)

Initial

8.2.6 Verify 1SX01PA check valve, 1SX001A shuts by observing the following:

1. Annunciator 5041-4E, AUTO START PSW PUMP does not annunciate. IV ___/___
2. Annunciator 5041-3F, LOW PRESS PSW STRAINER DISCHARGE HEADER does not alarm. IV ___/___
3. 1SX01PA does not auto-restart. IV ___/___
4. (Local) Verify no backflow can be heard going into 1SX01PA. ___

8.2.7 **IF** Flow through the RHR HX 1A is secured,

THEN Perform RHR A Hx MC Layup per CPS 3211.01, Shutdown Service Water (SX). ___

☞ Refer to CPS 3312.01, Residual Heat Removal (RHR) Limitation 6.1 for RHR 1A HX MC Layup criteria.

8.2.8 **SX MOV Test Prep Switch restoration** *«LBD-1»*

Place SSW DIV 1 MOV TEST PREP switch in NORM. IV ___/___

1. Verify SX D1 MOVS IN TEST status light deenergizes. ___
2. Verify NOT AVAILABLE SSW SYSTEM DIV 1 annunciator 5064-2C clears, or remains illuminated due to plant conditions. ___

8.2.9 **RHR A Test Prep Switch restoration** *«LBD-1»*

Place RHR A MOV TEST PREP switch in NORM. IV ___/___

1. Verify RHR A MOV IN TEST status light deenergizes. ___
2. Verify RHR A OUT OF SERVICE annunciator 5064-8G clears, or remains illuminated due to plant conditions. ___

8.2.10 As directed by the SMngt, return WS/SX operating loads shifted or secured in steps 8.1.2/8.2.1 back to Div 1. IV ___/___

8.2.11 Notify SMngt that the SX 'A' pump/valve operability test is complete. ___/___ ___
Date Time

Initial

8.3 **SX DIV 2 OPERABILITY**

8.3.1 Verify upper motor oil reservoir oil level for 1SX01PB at mark on sight glass (MS-08 criteria). _____

8.3.2 **IF** Desired (optional, not required until 8.4.1),

THEN For the Division 2 WS/SX operational loads (e.g., MCR HVAC system chiller, VP chiller):

1. Switch the WS/SX loads to Division 1, _____

OR

2. Secure the Division 2 loads not needed to support plant conditions. _____

8.3.3 Place SSW DIV 2 MOV TEST PREP switch in TEST. _____

1. Verify SX D2 MOVS IN TEST status light energizes. _____
2. Verify NOT AVAILABLE SSW SYSTEM DIVISION 2 annunciator (5065-2F) alarms, unless already in due to plant conditions. _____

8.3.4 Place RHR B MOV TEST PREP switch in TEST. _____

1. Verify RHR B MOVS IN TEST status light energizes. _____
2. Verify RHR B OUT OF SERVICE annunciator (5065-8B) alarms, unless already in due to plant conditions. _____

NOTE

Two new minimum flow valves are provided to ensure minimum pump flow: 1SX013E, SSW Strainer 1B Backwash Valve and 1SX063B, SX Pmp Min Flow DG 1B Hx Outlet Vlv.

Stopwatches are required prior to step 8.3.6.

Start timing 1SX063B, 1SX013E & 1SX014B when 1SX01PB control switch is placed to start.

Timing of 1SX013E: Since there is no position indication in the Control Room of 1SX013E, an operator is required to be stationed locally at the valve to time the valve from time of pump start to full open position of 1SX013E.

8.3.5 Momentarily place 1SX01PB control switch to START. _____

8.3 **SX DIV 2 OPERABILITY** (cont'd) Initial

8.3.6 Timing 1SX014B/1SX063B/1SX013E

1. (Record) Time shut 1SX014B, PSW To SSW 1B Hdr Isol Vlv. _____

2. (Record) Time open 1SX063B, SX Pmp Min Flow DG 1B Hx Outlet Vlv. _____

NOTE

SSW Strainer 1B Basket Motor (1SX021FB) no longer starts with pump start. Basket motor initiates on ΔP only.

1SX013E is timed from local position indicator instead of MCC bucket to ensure valve travels full stroke.

3. (Record) Time open 1SX013E, SSW Strainer 1B Backwash Valve. _____

8.3.7 Verify SSW Pmp Rm 1B Sply Fan, 1VH01CB has started (1H13-P801). _____

NOTE

1SX010B may be stroked by placing handswitch for 1VH01CB to start. See section 8.7.

8.3.8 (Local) Perform the following:

1. (Record) By observing stem movement:
   Time open 1SX010B, SX Outlet SX Pump Rm 1B EAC Vlv. _____

2. Verify a stream of water issuing from the stuffing box leak-off at the motor base. (~ a pencil sized stream of water or larger) _____

   ☞ Proper leakoff is essential to ensure cooling of the packing.

   An AR should be generated if leakoff is smaller than described or absent.

8.3 **SX DIV 2 OPERABILITY** (cont'd) Initial

NOTE

Required flow shall be established by:

Placing flow through RHR 1B Hx,
verifying 1SX063B, SX Pmp Min Flow DG 1B Hx Outlet Vlv is open, and
by continuously throttling flow through DW Chiller Heat Exchanger B (1VP04CB) as needed.

8.3.9 **1SX01PB Pump Operability-Pump Flow Setup**

1. Shut 1SX082B, RHR B Hx MU Cond Inlet Vlv. _____

NOTE

If the RHR Hx is not being used for SDC or Suppression Pool Cooling, (i.e. no load on the shell side of the heat exchanger), then the tube side and shell side temperatures are allowed to decrease to 32°F. «CM-3»

2. Place/verify flow through RHR Hx 1B with the following valve arrangement:
   1) 1E12-F014B, SSW Inlet RHR B Hx Valve OPEN _____
   2) 1E12-F068B, RHR Hx B SSW Outlet Valve OPEN _____

NOTE

1SX013E is required to be closed for the Pump Operability test as this flow bypasses the flow venturi. The following step requires declaring a short term LCO for inoperative 1SX013E.

3. At SSW MCC 1B-1D, place 1SX013E breaker to OFF. CV ___/___

4. Manually shut 1SX013E by engaging manual hand lever and turning handwheel. _____

5. With flow established though RHR Hx 1B and 1SX063B, SX Pmp Min Flow DG 1B Hx Outlet Vlv,

   Place 1FI-SX231, SX Hdr 1B Flow Test Inst in-service as follows: (refer to 5.8 also)

   ☞ This step is performed at this point to coordinate flow measuring steps and prevent over-ranging gage. Total system flow is expected to be ~ 9,500 - 11,000 gpm at this point.

   1) Slowly open 1FI-SX231LSI. _____
   2) Slowly open 1FI-SX231HSI. _____
   3) Slowly shut 1FI-SX231EV. _____

6. If required, continuously throttle using 1WS067B, DW Chiller Hx B TRV Bypass as necessary to obtain a flow of ≥ 30" H_2O as indicated on 1FI-SX231. _____

8.3 **SX DIV 2 OPERABILITY** (cont'd) Initial

8.3.10 (Record) After the pump has run for a minimum of 2 minutes, and conditions have stabilized, record:

1. Flow (in. H_2O) indicated on 1FI-SX231. _____

☞ Flow in the acceptable range (29.75 to 30.25" H_2O) satisfies "partial" open exercise for 1SX001B, Discharge Check Valve. *«CM-1»*

2. Obtain 1SX01PB vibration (VM1, HM1, AM1) readings at each specifically marked cable [preferred](bottom of the motor) or marked location [alternate](near upper motor bearing). _____

NOTE

If desired, to save a trip into SX pipe tunnel later, 1FI-SX231 may be isolated at this time per step 8.4.2 or wait until restoration section.

8.3.11 (Record) Record SX Pump 1B discharge pressure from locally mounted pressure indicator, 1PI-SX017. _____

NOTE

Contact Security to gain access to the Clinton Lake level indicator.

8.3.12 (Record) Record screenhouse lake level indication. _____

8.3.13 (Calculate) After data collection is completed, calculate and record following values:

☞ This step may be deferred while recovering, but final acceptance results will not be available until the calculations are completed.

1. Pump Flow. _____

2. Suction Lift Pressure. _____

3. Pump Differential Pressure. _____

8.4 **TEST RECOVERY 'B' PUMP**

Initial

8.4.1 Due to the system pressure drops which occur during test recovery resulting in equipment tripping:

IF Not already performed in step 8.3.2,

THEN For the Division 2 WS/SX operational loads (e.g., MCR HVAC system chiller, VP chiller):

1. Switch the WS/SX loads to Division 1, _____

OR

2. Secure the Division 2 loads not needed to support plant conditions. _____

8.4.2 Remove 1FI-SX231, SX Hdr 1B Flow Test Inst from service as follows:

1. Slowly shut 1FI-SX231HSI. **IV** ___/___
2. Slowly shut 1FI-SX231LSI. **IV** ___/___
3. Slowly open 1FI-SX231EV. **IV** ___/___

8.4.3 Return the following to the pre-test position:

1. Return 1WS067B, DW Chiller Hx B TRV Bypass to pretest position. **IV** ___/___

NOTE

This is a plug valve, do not attempt to backseat.

2. Manually open 1SX013E.
   1) Place SSW MCC 1B-1D 1SX013E bkr to ON. _____ **IV** ___/___
   2) Verify 1SX013E remains OPEN. _____
   3) **IF** Not being used for Shutdown Cooling,

      THEN Isolate flow through RHR Hx 1B:

      a) Shut 1E12-F068B, RHR Hx B SSW Outlet Valve. _____

      b) Wait ~ 15 - 20 seconds after initiating close signal for 1E12-F068B,

         Then shut 1E12-F014B, SSW Inlet RHR 1B Hx Valve. _____

   4) **IF** Div 2 DG is in service or being cooled down,

      THEN Wait for the activity to complete prior to commencing the following step.

8.4 **TEST RECOVERY 'B' PUMP** (cont'd) Initial

8.4.4 Place & hold 1SX014B control switch to OPEN.

Immediately place & hold 1SX01PB C/S to STOP.

When the valve indicates open, release the pump & valve C/S's.

IV ___/___

1. Verify SSW Pmp Rm 1B Sply Fan, 1VH01CB stops (1H13-P801). ___
2. (Local) Verify shut 1SX010B, SX Outlet SX Pump Rm 1B EAC Vlv. ___
3. (Local) Verify 1SX013E stroked closed. ___
4. If not being used to support DG run or cooldown, Shut 1SX063B. ___

NOTE

Following steps allows restoring from short term LCO for inoperative 1SX013E.

5. (Local) Place Backwash Control Switch to START. ___
6. (Record) Time open 1SX013E, SSW Strainer 1B Backwash Valve. ___
7. (Local) Place Backwash Control Switch to AUTO. ___
8. (Local) Verify 1SX013E stroked closed. ___

8.4.5 **IF** 1SX014B did not open, **THEN**:

1. At SSW MCC 1B-2A, open 1SX014B valve breaker. ___
2. Open 1SX014B manually until the pressure between SX & WS is equalized; not to exceed 25% open while initially pressurizing. ___

   IF Unable to approach WS system pressure,

   THEN Manually open 1SX014B no more than 50% to reach desired pressure. ___
3. Place and hold 1SX014B control switch in OPEN. ___
4. Place and hold 1SX01PB control switch in STOP. ___
5. At SSW MCC 1B-2A, close 1SX014B valve breaker. ___
6. When 1SX014B indicates open,
   1) Release 1SX014B control switch. ___
   2) Release 1SX01PB control switch. ___

8.4 **TEST RECOVERY 'B' PUMP** (cont'd) Initial

8.4.6 Verify 1SX01PB check valve, 1SX001B shuts by observing the following:

1. Annunciator 5041-4E, AUTO START PSW PUMP does not annunciate. IV ___/___
2. Annunciator 5041-3F, LOW PRESS PSW STRAINER DISCHARGE HEADER does not alarm. IV ___/___
3. 1SX01PB does not auto-restart. IV ___/___
4. (Local) Verify no backflow can be heard going into 1SX01PB. _____

8.4.7 **IF** Flow through the RHR HX 1B is secured,

THEN Perform RHR B Hx MC Layup per CPS 3211.01, Shutdown Service Water (SX). _____

☞ Refer to CPS 3312.01, Residual Heat Removal (RHR) Limitation 6.1 for RHR 1B HX MC Layup criteria.

8.4.8 **SX MOV Test Prep Switch restoration** *«LBD-1»*

Place SSW DIV 2 MOV TEST PREP switch in NORM. IV ___/___

1. Verify SX D2 MOVS IN TEST status light deenergizes. _____
2. Verify NOT AVAILABLE SSW SYSTEM DIV 2 annunciator 5065-2F clears, or remains illuminated due to plant conditions. _____

8.4.9 **RHR B Test Prep Switch restoration** *«LBD-1»*

Place RHR B MOV TEST PREP switch in NORM. IV ___/___

1. Verify RHR B MOV IN TEST status light deenergizes. _____
2. Verify RHR B OUT OF SERVICE annunciator 5065-8B clears, or remains illuminated due to plant conditions. _____

8.4.10 As directed by the SMngt, return WS/SX operating loads shifted or secured in steps 8.3.2/8.4.1 back to Div 2. IV ___/___

8.4.11 Notify SMngt that the SX 'B' pump/valve operability test is complete. ___/___ _____
Date Time

8.5 **SX DIV 3 OPERABILITY** Initial

8.5.1 Verify upper motor oil reservoir oil level for 1SX01PC at mark on sight glass (MS-08 criteria). _____

8.5.2 Place SSW SYS DIV 3 IN TEST switch in TEST. _____

1. Verify SX D3 MOVS IN TEST status light energizes. _____

2. Verify NOT AVAILABLE SSW SYSTEM DIVISION 3 annunciator (5064-2A) alarms, unless already in due to plant conditions. _____

NOTE

Stopwatches are required prior to step 8.5.3.

Start timing 1SX006C, 1SX010C & 1SX014C when 1SX01PC control switch is placed to start.

8.5.3 Momentarily place 1SX01PC control switch to START. _____

8.5.4 Timing 1SX006C/1SX014C

☞ 1SX014C shut position for stroke timing may be obtained locally (EE-01-016)

1. (Record) Time shut 1SX014C, PSW To SSW 1C Hdr Isol Vlv. NOTE _____

2. (Record) Time open 1SX006C, DG 1C Hx Outlet Vlv. _____

8.5.5 Verify SSW Pmp Rm 1C Sply Fan, 1VH01CC has started (1H13-P800). _____

8.5 **SX DIV 3 OPERABILITY** (cont'd) Initial

NOTE

1SX010C may be stroked by placing handswitch for 1VH01CC to start. See section 8.7.

8.5.6 (Local) Perform the following:

1. (Record) By observing stem movement:
   Time open 1SX010C,
   SX Outlet SX Pump Rm 1C EAC Vlv. NOTE1 _____

2. Verify a stream of water issuing from the stuffing box leak-off at the motor base. (~ a pencil sized stream of water or larger) _____
   ☞ Proper leakoff is essential to ensure cooling of the packing.
   An AR should be generated if leakoff is smaller than described or absent.

NOTE

Step 8.5.7 opens 1SX041A, SX Outlet HPCS Pump Rm EAC 1A.

Step 8.5.8 opens 1SX041B, SX Outlet HPCS Pump Rm EAC 1B.

8.5.7 Start HPCS Pmp Rm Sply Fan, 1VY08CA. _____

8.5.8 Start HPCS Pmp Rm Sply Fan, 1VY08CB. _____

8.5.9 Verify the 7 hour strainer flush timer running on SSW MCC 1C-1B (1AP31E) (i.e., light on and timer timing out). «CM-2» _____

8.5 **SX DIV 3 OPERABILITY** (cont'd) Initial

NOTE

The right set of lights on SSW MCC 1C compartment 1B are for 1SX013F, and the left set of lights are for the strainer motor.

8.5.10 At SSW MCC 1C-1B,

Place SX Str 1C Motor Control Switch to START,

Then release switch and let return to AUTO. _____

1. Verify that the basket motor starts, and _____
2. (Record) Time open the SX Str 1C Flush Vlv (1F), 1SX013F from (green light on - red light off) to: (red light on - green light off) using 1SX013F indication on SSW MCC 1C-1B. _____
3. Verify two minute timer running. (i.e., light on and timer timing out) *«CM-2»* _____

8.5.11 At SSW MCC 1C-1B,

Place SX Str 1C Motor Control Switch to STOP. _____

1. Verify that the basket motor stops, and _____
2. (Record) Time shut the SX Str 1C Flush Vlv (1F), 1SX013F from (red light on - green light off) to: (green light on - red light off) using 1SX013F indication on SSW MCC 1C-1B. _____
3. Verify two minute timer resets. _____
4. Return SX Str 1C Motor Control Switch to AUTO. *«CM-2»* **IV** _____

8.5.12 Place 1FI-SX232, SX Hdr 1C Flow Test Inst in-service: (refer to 5.8 also)

☞ This step is performed at this point to coordinate flow measuring steps and prevent over-ranging gage. Total system flow is expected to be ~ 860 gpm at this point.

1. Slowly open 1FI-SX232LSI. SV
2. Slowly open 1FI-SX232HSI. SV
3. Slowly shut 1FI-SX232EV. SV

8.5 **SX DIV 3 OPERABILITY** (cont'd) Initial

8.5.13 Unlock and throttle 1SX005C, SX Inlet DG 1C Hx to achieve a flow of ~ 33" H_2O as indicated on 1FI-SX232. _____

8.5.14 (Record) After the pump has run for a minimum of 2 minutes, and conditions have stabilized, record:

1. Flow (in. H_2O) indicated on 1FI-SX232. _____

   ☞ Flow in the acceptable range (32.5 to 33.5" H_2O) satisfies "partial" open exercise for 1SX001C, Discharge Check Valve. *«CM-1»*

2. Obtain 1SX01PC vibration (VM1, HM1, AM1) readings at each specifically marked cable [preferred] (bottom of the motor) or marked location [alternate] (near upper motor bearing). _____

NOTE

If desired, to save a trip into SX pipe tunnel later, 1FI-SX232 may be isolated at this time per step 8.6.1 or wait until restoration section.

8.5.15 (Record) Record SX Pump 1C discharge pressure from locally mounted pressure indicator, 1PI-SX018. _____

NOTE

Contact Security to gain access to the Clinton Lake level indicator.

8.5.16 (Record) Record screenhouse lake level indication. _____

8.5.17 (Calculate) After data collection is completed, calculate and record following values:

☞ This step may be deferred while recovering, but final acceptance results will not be available until the calculations are completed.

1. Pump Flow. _____
2. Suction Lift Pressure. _____
3. Pump Differential Pressure. _____

8.6 **TEST RECOVERY 'C' PUMP** Initial

8.6.1 Remove 1FI-SX232, SX Hdr 1C Flow Test Inst from service as follows:

1. Slowly shut 1FI-SX232HSI. IV ___/___
2. Slowly shut 1FI-SX232LSI. IV ___/___
3. Slowly open 1FI-SX232EV. IV ___/___

8.6.2 Lock open 1SX005C, SX Inlet DG 1C Hx. IV ___/___

8.6.3 **IF** Div 3 DG is in service or being cooled down,

THEN Wait for the activity to complete prior to commencing the following step.

8.6.4 Place & hold 1SX014C control switch to OPEN.

Immediately place & hold 1SX01PC C/S to STOP.

When the valve indicates open, release the pump & valve C/S's. IV ___/___

1. Verify SSW Pmp Rm 1C Sply Fan, 1VH01CC stops (1H13-P801). _____
2. (Local) Verify shut 1SX010C, SX Outlet SX Pump Rm 1C EAC Vlv. _____

8.6.5 **IF** 1SX014C did not open, **THEN**:

1. At SSW MCC 1C-2D, open 1SX014C valve breaker. _____
2. Open 1SX014C manually until the pressure between SX & WS is equalized; not to exceed 25% open while initially pressurizing. _____

   IF Unable to approach WS system pressure,

   THEN Manually open 1SX014c no more than 50% to reach desired pressure. _____
3. Place and hold 1SX014C control switch in OPEN. _____
4. Place and hold 1SX01PC control switch in STOP. _____
5. At SSW MCC 1C-2D, close 1SX014C valve breaker. _____
6. When 1SX014C indicates open,
   1) Release 1SX014C control switch. _____
   2) Release 1SX01PC control switch. _____

8.6 **TEST RECOVERY 'C' PUMP** (cont'd) Initial

8.6.6 Shut 1SX006C, DG 1C HX Outlet Valve. _____

8.6.7 Verify 1SX01PC check valve, 1SX001C shuts by observing the following:

1. Annunciator 5041-4E, AUTO START PSW PUMP does not annunciate. **IV** ___ / ___

2. Annunciator 5041-3F, LOW PRESS PSW STRAINER DISCHARGE HEADER does not alarm. **IV** ___ / ___

3. 1SX01PC does not auto-restart. **IV** ___ / ___

4. (Local) Verify no backflow can be heard going into 1SX01PC. _____

8.6.8 **SX MOV Test Prep Switch restoration** *«LBD-1»*

Place SSW DIV 3 MOV TEST PREP switch in NORM. **IV** ___ / ___

1. Verify SX D3 MOVS IN TEST status light deenergizes. _____

2. Verify NOT AVAILABLE SSW SYSTEM DIV 3 annunciator 5064-2A clears, or remains illuminated due to plant conditions. _____

8.6.9 Stop HPCS Pmp Rm Sply Fan, 1VY08CA. **IV** ___ / ___

8.6.10 Stop HPCS Pmp Rm Sply Fan, 1VY08CB. **IV** ___ / ___

8.6.11 Notify SMngt that the SX 'C' pump/valve operability test is complete. ___ / ___ _____
Date Time

NOTE

This section allows timing of the SX Pump Room Cooler Outlet valves by starting the Room Cooler Fan from its control switch.

This allows the valves to be timed without starting the SX pumps, minimizing wear and tear on the SX pumps.

The method of timing the valves from the time of SX pump start is still available in the respective sections of the procedure and the operator may choose which section to use.

The sections not used may be N/A'd as appropriate.

Valve stroke timing must be accomplished locally at the valve.

8.7 **SX SYSTEM AIR OPERATED VALVES OPERABILITY**

8.7.1 (Record) Time open 1SX010A(B)[C] by:
Starting SX Pump Room 1A(1B)[1C]
Supply Fan, 1VH01CA(B)[C].

NA 1A
____ 1B
____ 1C

8.7.2 Stop SSW Pmp Rm 1A(1B)[C] Sply Fan 1VH01CA(B)[C].

NA 1A
____ 1B
____ 1C

8.7.3 Verify 1SX010A(B)[C] shuts.

NA 1A
____ 1B
____ 1C

8.7.4 Verify the control switches are in AUTO for:

1. SSW Pmp Rm 1A Sply Fan, 1VH01CA. IV NA
2. SSW Pmp Rm 1B Sply Fan, 1VH01CB. IV NA
3. SSW Pmp Rm 1C Sply Fan, 1VH01CC. IV /

8.7.5 Notify SMngt that the SX air operated valve test is complete.

/ _____
Date Time

9.0 ACCEPTANCE CRITERIA

9.1 **OPERABILITY Requirements** - Failure to meet the Acceptance Criteria shall constitute a failure to comply with the applicable ITS LCO/ORM OR. ITS/ORM should be immediately reviewed to identify Action Statements needed for implementation. Refer to Supplemental Review Sheet for applicable ITS LCOs/ORM ORs.

9.1.1 Power Operated Valves (MOVs, AOVs)

1. The valve shall exhibit the required change of disk position. The stroke time shall not exceed the limiting value of full stroke time.
2. If the full stroke time is within the acceptance range, Then the test is acceptable.
3. If the valve fails to exhibit the required change of disc position, or exceeds the limiting value of full-stroke time, Then the valve shall be immediately declared inoperable.
4. If valves with measured stroke times do not meet the acceptance range, but are less than the limiting value Then the valve shall be immediately retested or declared inoperable.

   If the second set of data meets the acceptance range, Then the cause of the initial deviation shall be analyzed and the results documented in the comments/ deficiency section of the data sheet.
5. If the second set of data does not meet the acceptance range, but is less than the limiting value, then the test shall be analyzed by NSED within 96 hours of the test to verify that the new stroke time represents acceptable valve operation *or* the valve shall be declared inoperable.

   The valve may remain operable during the 96 hour analysis period.
6. Deviations in stroke time which can be attributed to factors external to the valve and control system would not INOP the valve. Examples: faulty stop watch, interruptions during test, burned out light bulb.

   If the reason for the deviation cannot be determined, Then declare the valve inoperable and initiate corrective action.
7. Analyses provided by Engineering which determine acceptable valve operation shall be documented and a copy attached to the test package.

9.1 **OPERABILITY Requirements** (cont'd)

9.1.2 Position Indication

Remote position indication is observed to verify that the valve operation (locally) is accurately indicated (at the remote location).

Position indication shall be satisfied with an Operator locally at the valve to verify actual valve movement in the proper direction (or by other positive means) as compared to remote indication.

Unacceptable indication does not INOP the valve provided the disc can be confirmed to be in the tested position.

If the indication is unacceptable, then initiate corrective actions immediately.

9.1.3 Pumps

1. Acceptable Range - If the ISI data fall into the Acceptable Range, the test results are acceptable.

2. Alert Range - If the ISI data fall into the Alert Range, then:

   1) The instruments involved may be recalibrated and the test rerun, or

   2) The test frequency shall be reduced to 6 weeks until the cause of the deviation is determined and the condition corrected.

3. Required Action Range - If the ISI data fall into the Required Action Range, then:

   The pump shall be declared inoperable immediately, and not returned to service until the cause of the deviation is determined and the condition corrected.

9.1.4 SX MOV Test Prep switches are returned to NORMAL. *«LBD-1»*

9.2 **OTHER Requirements** - None

10.0 **FINAL CONDITIONS**

SX system is OPERABLE.

11.0 **REFERENCES**

11.1 ITS LCO 3.7.1/2

11.2 LBD-1: ORM OR 2.5.2 *«6.1, 8.2.8/9, 8.4.8/9, 8.6.8, 9.1.4»*

11.3 CPS 1887.00, Administration Of In-Service Inspection (ISI) Program Activities

11.4 CPS 3211.01, Shutdown Service Water (SX)

11.5 CPS 3312.01, Residual Heat Removal (RHR)

11.6 CPS 8801.12, Local Mounted Instrument Valve Operation And Venting

11.7 CPS 9381.01, MOV Thermal Overload Bypass Device Verification

11.8 CM-1: CR1-93-11-068 *«8.1.10.1, 8.3.10.1, 8.5.14.1»*

11.9 CM-2: CR1-98-03-365 (7 hour Basket Motor timer removed from Div 1/ECN 31405 & Div 2/ECN 31406 *«8.5.9, 8.5.10.3, 8.5.11.4»*

11.10 CM-3: CR1-98-12-274 *«NOTEs 8.1.9.2 & 8.3.9.2»*

12.0 **APPENDICES** - None

13.0 **DOCUMENTS**

CPS 9069.01D001, SX System Operability Data Sheet

SHUTDOWN SERVICE WATER OPERABILITY TEST

SUPPLEMENTAL REVIEW SHEET

Corrective Action Taken

Operability Requirements:

ITS LCOs: 3.7.1 3.7.2

ORM ORs: 2.5.2

ODCM ORs: None

As applicable:

Initiated Condition Report No. _____

Initiated Work Document No. _____

Comments/Deficiencies

NOTE: Timing performed satisfactorily, not required to Time.

Review and Approval

Cognizant Plant Engineer (ISI Pump & Valve) _____ (Signature) _____ (Date)

Surveillance Coordinator: _____ (Signature) _____ (Date)

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.1.b.1

Revision Number: 00

Date: 4/10/2002

Developed By:	**D Antonelli**	**4/10/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: RO A.1.b. 1 **REVISION: 00**

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

CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: RO A.1.b. 1 **REVISION: 00**

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

JPM Title: MCR Panel Walkdown
JPM Number: RO A.1.b. 1
Revision Number: 00
Task Number and Title: Ability to recognize abnormal indications for system operating parameters, which are entry-level conditions for technical specifications.

K/A Number K 2.1.33 Importance 3.4 / 4.0

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References: OP-AA-103-102, WATCHSTANDING PRACTICES
Operations MCR Critical Parameter Log Page 1 (On-line)

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: RO A.1.b. 1 **REVISION: 00**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

- Initialize the simulator to IC-1 Full Power.
- Advance Chart Recorders, Mark the start of simulation and allow charts to run for ~ 5 min.
- Fill in the first 4 hours of a blank "Operations MCR Critical Parameter Log" Page 1 with the current conditions. Some minor variations in RPV and RR parameters may be used to add to realism.
- Activate Malfunction PC –14, "Leak Between DW and Containment" as necessary to drive Drywell Pressure to equal Containment Pressure.
- Note the change in conditions resulting in the insertion of the malfunction.

TASK STANDARDS:

- Complete the page 1 of the "Operations MCR Critical Parameter Log" by inserting the correct values for each parameter
- Correctly identify the changes in Drywell Pressure

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

OP-AA-103-102, WATCHSTANDING PRACTICES
Operations MCR Critical Parameter Log Page 1 (On-line)

EVALUATOR INSTRUCTIONS:

- Provide a marked up copy of the Operations MCR Critical Parameter Log, Page 1, prepared as described in the Simulator Setup Section.
- Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

JPM NUMBER: RO A.1.b. 1 **REVISION:** 00

The plant is operating at steady state at near full power. There are no testing or other plant activities in progress.

CRS has directed you to perform a panel walkdown utilizing the Operations MCR Critical Parameter Log and report the results to the CRS.

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

Operations MCR Critical Parameter Log

***Correctly fill in the parameters for the following:**

- **Reactor Pressure Vessel**
- **Drywell**
- **Containment**

Standard	Complete page 1 of the Operation MCR Critical Parameter Log accurately.
CUE	If the ATM values for drywell pressure are requested state they all read 0.0 psig. If containment pressure is asked for from the ATMs report 0.0 psig
Comments	If completed log is submitted without a report of the abnormal parameter, then the **CRS should NOT prompt** the CRO by asking about abnormal readings. SAT UNSAT Comment Number

4.2 **WATCHSTANDING PRACTICES, OP –AA-103-102**

***4.2.5.1** **BE ALERT for changing critical parameters, alarms and/or trends. Any changes must be identified and communicated to the Unit Supervisor for Field Supervisor as appropriate.** The expectation is to identify and resolve the abnormal trend before plant safety is challenged. The goal is to identify adverse trends before an alarm setpoint is reached and to adjust equipment to maintain parameters within prescribed tolerances. Use diverse information sources to verify status where possible.

Standard	CRO communicates the change in Drywell Pressure to CRS without prompting by the CRS.
CUE	CRS acknowledges the communication of the abnormal Drywell Pressure indication.
Comments	It is not required for the CRO to neither identify nor speculate on the cause of the abnormal parameter. SAT UNSAT Comment Number

JPM NUMBER: RO A.1.b. 1 **REVISION:** 00

TERMINATING CUES:

CRO reports completion of page 1 of the Operations MCR Critical Parameter Log and submits it to the CRS with any reports of any changes in critical parameters.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Generic	K 2.1.33	3.4	4.0

JPM NUMBER: RO A.1.b. 1 **REVISION:** 00

INITIATING CUE

The plant is operating at steady state at near full power. There are no testing or other plant activities in progress.

CRS has directed you to perform a panel walkdown utilizing the Operations MCR Critical Parameter Log and report the results to the CRS.

Date 7/11

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OPERATIONS MCR CRITICAL PARAMETERS (On Line)

	READING	UNITS	INSTR. @	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:0
REACTOR PRESSURE VESSEL	APRM * - A B C D	%	C51DA021/22/23/24									91	90	90	90							
	PRESSURE	PSIG	RP-DD010									1020	1020	1020	1020							
	LEVEL (NR) * - A B C	INCHES	C34DA007/8/9									34	34	34	34							
	RT - F/D 'A' FLOW	GPM	G33DA004									121.4	121.4	121.4	121.4							
	RT - F/D 'B' FLOW	GPM	G33DA005									120.1	120.1	120.1	120.1							
	RT - SYSTEM DELTA-FLOW	GPM	E31DA001									25.2	27.2	26.2	29.6							
	TOTAL STEAM FLOW	MLBM/HR	MS-BD021									13.3	13.9	13.3	13.3							
	TOTAL FEEDWATER FLOW	MLBM/HR	FW-BE001									13.3	13.3	13.3	13.3							
	RR - INNER SEAL 'A'	PSIG	B33DA005									1051	1045	1046	1051							
	RR - OUTER SEAL 'A'	PSIG	B33DA007									514	511	515	514							
	RR - INNER SEAL 'B'	PSIG	B33DA006									1051	1050	1051	1051							
	RR - OUTER SEAL 'B'	PSIG	B33DA008									515	514	514	514							
	RR - DRIVING FLOW 'A'	GPM	B33DA013									31300	30935	31358	30881							
	RR - DRIVING FLOW 'B'	GPM	B33DA014									31215	31185	31200	31215							
	TOTAL CORE FLOW	MLBM/HR	B33DA024									81.3	81.4	82.0	81.7							
	RR - FCV 'A' POSITION	%	B33DA009									75	75	75	76							
	RR - FCV 'B' POSITION	%	B33DA010									74	74	75	75							
DW	PRESSURE	PSIG	B21DD010									.6	.6	.6	.6							
	TEMPERATURE	F	CM-DD010									105	105	105	105							
CNMT	PRESSURE	PSIG	CM-DD030									0.0	0.0	0.0	0.0							
	TEMPERATURE	F	CM-DD020									82	82	82	82							
	SUPPRESSION POOL TEMP	F	CM-DD040									80	80	80	80							
	SUPPRESSION POOL LEVEL	FEET	SM-DD010									19.2	19.2	19.2	19.2							

* CIRCLE CHANNEL USED

@ OR OTHER EQUIVALENT CHANNEL

ENTER **VALUES** FOR ALL PARAMETERS.
THESE VALUES WILL HELP TO PROVIDE TRENDING INFORMATION.

KEEP PAGE FOR A PERIOD OF TWO (2) WEEKS.

Date 4/4/2

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OPERATIONS MCR CRITICAL PARAMETERS (On Line)

BALANCE OF PLANT

READING	UNITS	INSTR. @	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:0
CONDENSER VACUUM	"HG	CA-DA201/202 CD-BE203/204									-28.3	-28.3	-28.3	-28.3							
HOTWELL LEVEL	INCHES	CD-DA401									28.3	28.3	28.3	28.3							
CONDENSATE TEMP	F	CD-DA001									86.0	86.0	86.0	86.0							
FEEDPUMP SUCTION * PRESS - A B C	PSIG	CB-DA201, FW-BA201/202									451	451	452	451							
FEEDPUMP SPEED - 'A'	RPM	FW-DA917									4610	4665	4640	4665							
FEEDPUMP SPEED - 'B'	RPM	FW-DA918									4745	4755	4740	4760							
FW TEMP * - A B	F	FW-BD030/031									412.8	412.8	412.8	412.8							
MS PRESS * - A B	PSIG	C85DA004/005									459	459	459	459							
MAIN TURB 1st STAGE PRESS	PSIG	MS-BE001									696	696	696	696							
TO BRG HEADER PRESS	PSIG	TO-DA201									25.0	25.0	24.8	25.0							
TO TEMP - IN	F	TO-DA002									108.9	108.9	108.9	108.9							
TO TEMP - OUT	F	TO-DA001									136.8	136.8	136.8	136.8							
SEAL STEAM PRESS	PSIG	GS-DA201									4.1	4.1	4.1	4.1							
MAIN EHC PRESSURE	PSIG	EH-DA201									1600	1600	1600	1600							
MAIN GEN POWER OUT	MWE	MP-BD004									104	104	104	104							
MAIN GEN REACTIVE	MVAR	MP-BF018									1153	1153	1153	1153							
MAIN GEN VOLTAGE %	KV	MP-BF012/14/16									23.8	23.0	23.0	23.0							
MAIN GEN CURRENT %	KAMPS	MP-BF013/15/17									28.4	28.4	28.4	28.4							
MAIN GEN FIELD CURREN	AMPS	MP-DA507									1160	1160	1160	1160							
MPT LOADING	MVA	MP-BE005									1100	1100	1100	1100							
GEN H2 PRESS	PSIG	HY-BA201									78	78	78	77							

* CIRCLE CHANNEL USED
% HIGHEST READING CHANNEL
@ OR OTHER EQUIVALENT CHANNEL

ENTER **VALUES** FOR ALL PARAMETERS.
THESE VALUES WILL HELP TO PROVIDE TRENDING INFORMATION.

KEEP PAGE FOR A PERIOD OF TWO (2) WEEKS.

Date 11/24/22

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OPERATIONS MCR PANEL WALK DOWN CHECKS (On Line)

	READING	UNITS	NORMAL	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20
5010	RAT SVC VOLT	N/A	IN OPERATION									✓	✓	✓	✓									
	ERAT SVC VOLT	N/A	IN OPERATION									✓	✓	✓	✓									
	BROKAW MW & MV	N/A	CHANNEL CHECK									✓	✓	✓	✓									
	RISING MW & MV	N/A	CHANNEL CHECK									✓	✓	✓	✓									
	LATHAM MW & MV	N/A	CHANNEL CHECK									✓	✓	✓	✓									
	N & S BUS VOLT	KV	~358.8									✓	✓	✓	✓									
5011/5012	6.9 & 4.16 CURRENT & MW	N/A	NOT IN RED BAND									✓	✓	✓	✓									
	ALL 480 UNIT SUBS	N/A	NOT IN RED BAND									✓	✓	✓	✓									
	6.9 & 4.16 VOLT	KV	VALUE IN SPEC									✓	✓	✓	✓									
	DCMCC 1E & 1F	KV	VALUE IN SPEC									✓	✓	✓	✓									
5014	CY & MC PRESS	PSIG	VALUE IN SPEC									✓	✓	✓	✓									
	MC & CY COMBINED LVLS	%	> 66%									✓	✓	✓	✓									
	CP FLOW	N/A	NOT IN RED BAND									✓	✓	✓	✓									
	HOTWELL LEVEL	N/A	IN GREEN BAND									✓	✓	✓	✓									
5015TO5017	FLASH TANK LVLS	INCHES	~ 0in									✓	✓	✓	✓									
	ALL FW HTR LVLS	INCHES	IN GREEN BAND									✓	✓	✓	✓									
	WT PRESS	PSIG	~90psig									✓	✓	✓	✓									
	EH PRESS	PSIG	~1600psig									✓	✓	✓	✓									
	HYDROGEN PRESS	PSIG	~60psig									✓	✓	✓	✓									
	TG BEARING PRESS	PSIG	~25psig									✓	✓	✓	✓									
	TURB OIL LEVEL	N/A	IN GREEN BAND									✓	✓	✓	✓									
	TO & EH TEMPS	N/A	IN GREEN BAND									✓	✓	✓	✓									
5018/5019	MSR's BALANCED	PSIG	BALANCED									✓	✓	✓	✓									
	STM SEAL HDR PRESS	N/A	~ 4 psig									✓	✓	✓	✓									
	SSE SHELL LEVEL	N/A	IN GREEN BAND									✓	✓	✓	✓									
	MSR & RHTR DRAIN TANK LEVELS	INCHES	~ 0in									✓	✓	✓	✓									
5040	CCW HTX OUTLET PRESS	N/A	IN GREEN BAND									✓	✓	✓	✓									
	FC PUMP CURRENT	N/A	IN GREEN BAND									✓	✓	✓	✓									
												✓	✓	✓	✓									

ONLY READINGS DESIGNATED ON 4 HOUR INTERVALS REQUIRE VALUES ENTERED. ALL OT
BLOCKS ARE CHECK MARKS ONLY.

DATE 11/1/23

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OPERATIONS MCR PANEL WALK DOWN CHECKS (On Line)

	READING	UNITS	NORMAL	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20
5041	WS PUMP CURRENT	N/A	IN GREEN BAND									/	/	/	/									
	CW CURRENT	N/A	IN GREEN BAND									/	/	/	/									
	CW LINE 1A delta P	PSID	N/A										7											
	CW LINE 1B delta P	PSID	N/A										7.5											
	CW INLET TEMP	N/A	IN GREEN BAND									/	/	/	/									
	SA CURRENT	AMPS	AS EXPECTED										70											
5042/5050/5052																								
	WO CHILLER CURRENTS	N/A	~ BALANCED									/	/	/	/									
	MCR delta P	IN H_2O	~ +.25 INCHES									/	/	/	/									
	SEC CONT delta P	N/A	IN GREEN BAND									/	/	/	/									
	FUEL BLDG delta P	N/A	IN GREEN BAND									/	/	/	/									
	DW CHILLER IN TEMP	^0F	N/A																					
	DW CHILLER OUT TEMP	^0F	N/A																					
5060TO5063	DIV 1 FOST LVL	%	N/A																					
	DIV 2 FOST LVL	%	N/A																					
	DIV 3 FOST LVL	%	N/A																					
	DCMCC 1A,1B,1C,1D	volts	>129 volts									/	/	/	/									
	DIV 3 SX PRESSURE	psig	> 80 psig									/	/	/	/									
5060TO5068	DIV 1 & 2 SX PRESS	N/A	IN GREEN BAND									/	/	/	/									
	DIV 1 & 2 ADS AIR HDR PRESS	psig	175 psig to 150 psig									/	/	/	/									
	DIV 1 & 2 ADS BACKUP AIR BOTTLE PRESS	psig	>2300 psig									/	/	/	/									
	CRD PUMP AMPS	N/A	IN GREEN BAND									/	/	/	/									
	CRD DRIVE WTR delta P	N/A	IN GREEN BAND									/	/	/	/									
	CRD CHRG WTR PRESS	N/A	IN GREEN BAND									/	/	/	/									
	CRD COOLING WTR FLOW	N/A	IN GREEN BAND									/	/	/	/									
	SJAE 2ND STAGE FLOW	%	100%									/	/	/	/									
	OG HYD LEVEL	%	<1%									/	/	/	/									
845	DESC. VESSEL delta P	IN H_2O	N/A										1.0											
	ADSORBER VAULT TEMP PROFILE	^0F	CONSTANT FOR CONDITIONS									/	/	/	/									
	OG STREAM FLOW (CHANNEL CHECK)	SCFM	CHANNEL CHECK									/	/	/	/									

CRS SHIFTLY PANEL WALK DOWN WITH RO

Mids CRS/RO initials DRY CW

Days CRS/RO initials ____/____

Swings CRS/RO initial

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.2.1

Revision Number: 00

Date: 4/11/2002

Developed By:	**D Antonelli**	**4/11/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/20/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: RO A.2.1 **REVISION:** 00

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: RO A.2.1 **REVISION:** 00

Revision Record (Summary)

1. **Revision 00** This is a new JPM

CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: RO A.2.1 **REVISION:** 00

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

JPM Title: Remove an Annunciator From Service
JPM Number: RO A.2.1
Revision Number: 00
Task Number and Title: Knowledge of the process for controlling temporary changes.

K/A Number 2.2.11 Importance 2.5 / 3.4

Suggested Testing Environment: Control Room

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References: CPS No. 1406.01 Annunciator Tracking Program
CPS No. 5060.08C Low Level DG Day Tank 1A

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: RO A.2.1 **REVISION:** 00

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

Not Applicable

TASK STANDARDS:

CRO correctly identifies the following:

- Location for placement of the Disabled Annunciator - Fully (DAF) - RED FLAG on Panel 1 H13-P877, Tile 5060.08C.
- Location for pulling the alarm card at 1H13-P850, Row P877-14A, Card 8C

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS No. 1406.01 Annunciator Tracking Program
CPS No. 5060.08C Low Level DG Day Tank 1A

EVALUATOR INSTRUCTIONS:

Ensure that the CRS is aware of the need to access the MCR for passive activities with an examinee.
Provide task briefing using Initial Conditions.
Amplifying cues are provided within the JPM steps.

JPM NUMBER: RO A.2.1 **REVISION:** 00

INITIAL CONDITIONS:

Annunciator 5060.08C Low Level DG Day Tank 1A is actuating periodically without a corresponding change in Day Tank Level. Once the alarm is acknowledged it will clear after a few minutes. The frequency of the alarms and clearing is irregular and unpredictable, creating a distraction.

This deficiency has been evaluated, and the following actions and decisions have been made.

- Neither a safety evaluation nor a temporary modification is required.
- Maintenance Action Request has been generated to trouble shoot the alarm (AR# 006789).
- Compensatory actions have been formulated which include issuance of instructions to the Area operator for verifying Day Tank level once every four hours.
- According to CPS No. 1406.01, Annunciator Tracking Program, the disposition of the annuciator condition is a DISABLED ANNUNCIATOR - FULLY (DAF).
- CRS has made the entry into the Annunciator tracking log.

CAUTION
During the performance of this evaluation no actual manipulation of plant equipment is to be performed by the examinee.

ASSIGNED TASK:

Prepare a DAF tag and **simulate** placement of it as required by CPS No. 1406.01.
Simulate disabling annunciator 5060.08C Low Level DG Day Tank 1A

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 ANNUNCIATOR TRACKING

EVALUATOR NOTE
Step 8.1.4 and Step 8.1.5 may be performed in either order. Performance of Step 8.1.5 yields the card location for performing Step 8.1.4.

8.1.4 Special Instructions specific to Disabled Annunciators - Partially/Fully (DAP/DAF)

a) ***The annunciator should be fully disabled (DAF) by pulling the annunciator card.** Pulling of annunciator cards is the preferred method of disabling annunciators. Since this activity is covered in this procedure, no temporary modification is required per CPS No. 1014.03, TEMPORARY MODIFICATIONS.

Standard: Correctly identifies the correct location for pulling the alarm card at 1H13-P850, Row P877-14A, Card 8C.

CUE: Do not actually touch the card. You may merely identify the proper location.

Comments: Ensure that the examinee request permission to access the back row panel P850 from the CRS.

No specific guidance on whether the associated alarm card is in P630 or P850. Student may need to look into both panels to determine which one houses the alarm card and does not constitute a competency issue.

Card location address is inscribed on alarm window 5060.08C at P877.

SAT UNSAT Comment Number

8.1.5 a) Prepare a BLUE (for OOS), an ORANGE (for DAP), or a RED (for DAF) Tape FLAG(s) as follows:

Include on the FLAG the date, and applicable item which resulted in the OOS/DAP/DAF condition (e.g., AR #, Tag Out #, Temp Mod #, Proc #, etc.).

Standard: Examinee prepares a RED DAF tag with AR 006789 noted on the tag.

CUE:

Comments: Ensure that examinee request permission to enter the "At the Controls" area of the MCR from WEC Supv if it is necessary to obtain the DAF tag.

SAT UNSAT Comment Number

8.1.5 b) Place the applicable FLAG(s) (OOS/DAP/DAF) on the applicable annunciator window(s).

Standard: Correctly identifies location for placing the DAF tag at P877 window 5060.08C.

CUE: Do not actually place the tag. You may merely identify the proper location.

Comments: Ensure that examinee request permission to enter the "At the Controls" area of the MCR from WEC Supv.

SAT UNSAT Comment Number

JPM NUMBER: RO A.2.1 **REVISION:** 00

TERMINATING CUES:

Terminate the JPM once examinee has identified a location for the placement of the DAF tag and a card location for disabling the alarm.

Inform the examinee that someone else will make the appropriate log entries.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Generic	2.2.11	2.5	3.4

INITIATING CUE

INITIAL CONDITIONS:

Annunciator 5060.08C Low Level DG Day Tank 1A is actuating periodically without a corresponding change in Day Tank Level. Once the alarm is acknowledged it will clear after a few minutes. The frequency of the alarms and clearing is irregular and unpredictable, creating a distraction.

This deficiency has been evaluated, and the following actions and decisions have been made.

- Neither a safety evaluation nor a temporary modification is required.
- Maintenance Action Request has been generated to trouble shoot the alarm (AR# 006789).
- Compensatory actions have been formulated which include issuance of instructions to the Area operator for verifying Day Tank level once every four hours.
- According to CPS No. 1406.01, Annunciator Tracking Program, the disposition of the annuciator condition is a DISABLED ANNUNCIATOR - FULLY (DAF).
- CRS has made the entry into the Annunciator tracking log.

CAUTION
During the performance of this evaluation no actual manipulation of plant equipment is to be performed by the examinee.

ASSIGNED TASK:

Prepare a DAF tag and **simulate** placement of it as required by CPS No. 1406.01.

Simulate disabling annunciator 5060.08C Low Level DG Day Tank 1A

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.3.1

Revision Number: 00

Date: 4/15/2002

Developed By:	**D Antonelli**	**4/15/02**
	Instructor	**Date**
Validated By:	**T. Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/20/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: 011288J001 **REVISION: 00**

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 JPM VC-33 R6, modified to reflect Rev 21 of 3402.01 and put into the new format.

CLINTON POWER STATION
SYSTEM JPM

JPM NUMBER: 011288J001 **REVISION: 00**

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

JPM Title: Startup the Control Room Ventilation System (VC) in the High Radiation Mode
JPM Number: 011288J001
Revision Number:00
Task Number and Title: 011288C538

K/A Number 2.3.10 Importance: 2.9/ 3.3

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

Estimated Time to Complete: 20 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: 011288J001 **REVISION: 00**

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 7M HI RADIATION CONT RM HVAC SYSTEM DIVISION I to the alarm status.
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

TASK STANDARDS:

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

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.
If AR/PR is not functioning a Radiation Level Data Sheet is attached for providing examinee radiation level information available on 1H13-P801. This data sheet may be handed to the examinee when they pursue the information.

JPM NUMBER: 011288J001 **REVISION: 00**

INITIAL CONDITIONS AND INITIATING CUE:

Respond to the annunciator on P801 insert 5050.

NOTE
If AR/PR doesn't function, when examinee pursue reading the Radiation Level indicators on P801 or PRM provide the information using the attached briefing sheet.

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, and associated red indication lights are ON.

CUE — Respond as RP if a 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: Damper lights for 0VC09YA(B) and 0VC11YA(B) indicate OPEN
Damper light for 0VC10YA(B) indicates CLOSED

CUE

Comments

SAT UNSAT Comment Number

8.3.3.3 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 not 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 and obtain reading.

If AR/PR is not functioning then hand attachment with above readings to examinee when they pursue this information, if not done so previously

Cue

	MONITOR	INDICATION	LOCATION	READINGS
DIV 1:	PR009A	0RI-VC075	P801-66B	**11 mR/hr**
	PR009C	0RI-VC076	P801-66B	**4 mR/hr**
DIV 2:	PR009B	0RI-VC175	P801-67B	**12 mR/hr**
	PR009D	0RI-VC176	P801-67B	**5 mR/hr**

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/verifies 0VC01YA is OPEN and shuts/verifies 0VC01YB is SHUT.

CUE

Comments

SAT UNSAT Comment Number

TERMINATING CUES:

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

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Generic	2.3.10	2.9	3.3

JPM NUMBER: 011288J001 **REVISION: 00**

INITIATING CUE

Respond to the annunciator on P801 insert 5050.

RADIATION LEVEL CUE

	MONITOR	INDICATION	LOCATION	READINGS
DIV 1:	PR009A	0RI-VC075	P801-66B	**11 mR/hr**
	PR009C	0RI-VC076	P801-66B	**4 mR/hr**
DIV 2:	PR009B	0RI-VC175	P801-67B	**12 mR/hr**
	PR009D	0RI-VC176	P801-67B	**5 mR/hr**

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CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.4.1

Revision Number: 01

Date:4/5/02

Developed By:	**Mark Otten**	**4/5/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/20/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: RO A.4.1 **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: RO A.4.1 **REVISION: 01**

Revision Record (Summary)

1. **Revision 00,** This JPM is from the 2001 ILT NRC Exam

JPM NUMBER: RO A.4.1 **REVISION: 01**

Operator's Name:_____

Job Title: ❑ RO ❑ SRO

JPM Title: Make a Plant Announcement for FIRE in the Paint and Oil Storage Room with Area Evacuation

JPM Number: RO A.4.1

Revision Number: 01

Task Number and Title: 014286C512, Respond to a fire

K/A Number

2.4.43, Knowledge of emergency communications systems and techniques, Importance 2.8/3.5

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References:

CPS 1893.04 FIRE FIGHTING.

JPM NUMBER: RO A.4.1 **REVISION: 01**

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: RO A.4.1 **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:

None

TASK STANDARDS:

The Fire Alarm has been sounded and the announcements made per CPS 1893.04 FIRE FIGHTING.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 1893.04, FIRE FIGHTING

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

Cue the candidate in an isolated area of the simulator. Let the student show where to locate the PA and radio base station, demonstrates how to us them, then take the student to an isolated location to complete the task in a quiet voice.

INITIAL CONDITIONS AND INITIATING CUE:

1. The plant is operating at 100% power.
2. You are the 'B' Reactor Operator.
3. You have just received a call stating that there is a fire in the Paint and Oil Storage Room. Device #23-16 RW Paint and Oil Storage Rm WPS is alarming on the XL-3 panel.
4. Perform the Control Room actions.
5. Report when you have completed the task.

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

Step 1	Inform Shift Management of the FIRE.
Standard	The Control Room Supervisor or the Shift Manager has been notified.
CUE:	Acknowledge the report as Shift Management. Inform candidate there is no additional restrictions required
Comments	

SAT UNSAT Comment Number

***Step 2**	**Sound the fire alarm and continue to sound the alarm at regular intervals until the fire is extinguished.**
Standard	The fire alarm is initiated and silenced prior to making the Public Address Announcement.
Note	The fire alarm is initiated by depressing the fire alarm pushbutton on the Gaitronics Alarm Panel located on the desk in the Main Control Room.
Comments	Let the student show where to locate the PA, demonstrates how to us it.

SAT UNSAT Comment Number

***Step 3** **Announce over the Public Address System:**

Attention All Personnel!

Attention All Personnel!

There is a fire in the Paint and Oil Storage Room!

All personnel shall keep clear of the affected areas!

Fire Brigade operations and communications will be on the operations radio frequency and gaitronics; this frequency and gaitronics are now assigned for emergency fire ground use.

Standard — Announcement is made using a Gaitronics phone in the Main Control Room.

Comments — Let the student show where to locate the PA, demonstrates how to us it, then take the student to an isolated location to complete the task in a quiet voice.

SAT UNSAT Comment Number

***Step 4** **Announce over the operations radio channel:**

Attention All Personnel!

Attention All Personnel!

There is a fire in the Paint and Oil Storage Room!

All personnel shall keep clear of the affected areas!

Fire Brigade operations and communications will be on the operations radio frequency and gaitronics; this frequency and gaitronics are now assigned for emergency fire ground use.

Standard — Announcement is made using the radio on the desk in the Main Control Room.

Comments — Let the student show where to locate the radio base station, demonstrates how to us it, then take the student to an isolated location to complete the task in a quiet voice.

SAT UNSAT Comment Number

Step 5	Any special instructions should also be announced over both communications systems.
Standard	Request from the CRS if there are any special instructions that need to be announced.
CUE	Report as the CRS that there are no special instructions to announce at this time.
Comments	See step one where the SM provided a response of no special instructions

SAT UNSAT Comment Number

Step 6	Start a fire pump
Standard	Operator reports that he would go back to the Fire Protection Panel and start a Fire Pump.
CUE	Report that Fire Pump is running.
Comments	Fire Pump would automatically start on low header pressure when fire suppression systems activate.

SAT UNSAT Comment Number

Step 7	Inform RP of any fire on site to evaluate potential radiological hazards.
Standard	Operator calls RP to report the fire and its location.
CUE	Acknowledge report of the fire.
Comments	

SAT UNSAT Comment Number

Step 7	Refer to Appendices A, B & C and determine the appropriate safe shutdown method and/or manual actions that may be required.
Standard	Determines from Appendix A Zone R-1N Safe Shutdown methods 1,2,3 and reports to Shift Management
CUE	Respond as Shift Management that Zone R-1N Safe Shutdown methods 1,2,3 apply
Comments	

SAT UNSAT Comment Number

TERMINATING CUES:

Fire alarm initiated, Public Announcement for a fire made per CPS 1893.04

STOP TIME: _____

INITIATING CUE

1. The plant is operating at 100% power.
2. You are the 'B' Reactor Operator.
3. You have just received a call stating that there is a fire in the Paint and Oil Storage Room. Device #23-16 RW Paint and Oil Storage Rm WPS is alarming on the XL-3 panel.
4. Perform the Control Room actions.
5. Report when you have completed the task.

Facility: Clinton Power Station Date of Examination: 7/29/2002

Examination Level (circle one): **RO** / SRO Operating Test Number: **ILT0101-2**

	Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations Fuel Handling	JPM - Perform Core Alteration Surveillance Log (faulted). K/A 2.1.31 Imp 4.2
	Conduct of Operations Plant Parameter Verification	JPM - Determine if Power, Flow or Core Thermal Limits have been Exceeded (faulted). K/A 2.1.19 Imp 3.0
A.2	Equipment Control Surveillance Testing	JPM - Calculate Reactor Coolant System Leakage K/A 2.2.12 Imp 3.0
A.3	Radiation Control Radiation Work Permits	JPM - Entry requirements for a LHRA/Contaminated Area K/A 2.3.1 Imp 2.6
A.4	Emergency Plan Emergency Communications	JPM - Perform a Plant Assembly Announcement K/A 2.4.43 Imp 2.8

CX2 Staple

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CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.1.b.2

Revision Number: 01

Date: 04/15/2002

Developed By:	**C Ware**	**4/15/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B> Price**	**5/21/02**
	Training Department	**Date**

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JPM NUMBER: 011298J001 **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 – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

JPM NUMBER: 011298J001 **REVISION:** 01

Revision Record (Summary)

Revision	Date	Description
00	07/26/2001	This is a new RO Administrative JPM.
01	04/15/2002	Updated JPM with EPU (power uprate) information

CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: 011298J001 **REVISION: 01**

Operator's Name: _____

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

JPM Title: Determine if Power, Flow, or Core Thermal Limits Have Been Exceeded – Faulted
JPM Number: 011298J001
Revision Number: 01
Task Number and Title: 011298C524 / Evaluate Core Thermal Limits During Power Operations

K/A Number Generic 2.1.19 Importance 3.0

Suggested Testing Environment: Any Location Where References are Available

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 13 minutes **Actual Time Used:** _____ minutes

References: CPS 9820.01, Power Distribution Limits
CPS 9820.01D001, Power Distribution Limits Data Sheet

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: 011298J001 **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. No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

Not Applicable

TASK STANDARDS:

- Perform CPS 9820.01, Power Distribution Limits with no deviation from the procedure.
- Identifies highest values of MFLCPR and MFLPD are > 1.0.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

CPS 9820.01D001, Power Distribution Limits Data Sheet

PROCEDURAL/REFERENCES:

CPS 9820.01, Power Distribution Limits
CPS 9820.01D001, Power Distribution Limits Data Sheet

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

You are directed to perform the daily surveillance CPS 9820.01, Power Distribution Limits. Report when the task is complete.

START TIME: _____

JPM NUMBER: 011298J001 **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

9820.01 Power Distribution Limits

1 5.1 Notify Shift Management prior to performing procedure.

Standard: Notifies Shift Management prior to performing procedure. Enters start date, start time, and initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue: Acknowledge notification.

Comments:

SAT UNSAT Comment Number

2 5.2 Verify Core Thermal Power is ≥ 21.6% of RTP.

Standard: Verifies Core Thermal Power is ≥ 21.6% of RTP by checking the 3D Case. Initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: 3D Case has 99.9% Core Thermal Power.

SAT UNSAT Comment Number

3 5.3 Check the applicable entry condition.

Standard: Determines that the applicable entry condition is Daily Surveillance. Checks the appropriate box on CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: The entry condition was given in the initiating cue.

SAT UNSAT Comment Number

---

4 5.4 Verify 3D Case ID has an 'M' in 2nd character.

Standard: Determines that second character of 3D CASE ID is an 'M'. Initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: CASE ID is FMLD1950708205855

SAT UNSAT Comment Number

---

5 5.5 Check applicable RR pump status.

Standard: Would check RR pump status on DCS. Checks the appropriate box on CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue: Inform operator that 2 RR pumps are running.

Comments:

SAT UNSAT Comment Number

6	5.6		Check applicable 3D Case OPTION line items: ARTS, DUAL LOOP, MANUAL FLOW, SINGLE LOOP
		Standard:	Checks the 3D Case and determines that ARTS, DUAL LOOP, and MANUAL FLOW boxes should be checked. Checks ARTS, DUAL LOOP, and MANUAL FLOW boxes on CPS 9820.01D001, Power Distribution Limits Data Sheet.
		Cue:	
		Comments:	This information is located to the right of OPTION on the 3D Case.
			SAT UNSAT Comment Number
7	8.2		From the 3D Case determine the highest MAPRAT value. Initial CPS 9820.01D001 if MAPRAT $\leq$ 1.0.
		Standard:	Determines the highest MAPRAT value is 0.821. Initials CPS 9820.01D001, Power Distribution Limits Data Sheet.
		Cue:	
		Comments:	
			SAT UNSAT Comment Number

*8 8.3 **From the 3D Case determine the highest MFLCPR value.**

Initial CPS 9820.01D001 if MFLCPR ≤ 1.0.

Standard: Determines that the highest MFLCPR value is 1.003. Does not initial CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue: If asked about the 'Supplemental Review Sheet' notify examinee to use 9.1 or the bottom of the 9820.01D001.

Comments: Two locations have MFLCPR value > 1.0 (37-28 & 39-26)

SAT UNSAT Comment Number

*9 8.4 **From the 3D Case determine the highest MFLPD value.**

Initial CPS 9820.01D001 if MFLPD ≤ 1.0.

Standard: Determines that the highest value of MFLPD is 1.002. Does not initial CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: One location has MFLPD value > 1.0 (17-22-18)

SAT UNSAT Comment Number

*10 8.5 **Immediately contact Shift Management if any of the following conditions occur so that corrective action may be taken in accordance with the appropriate ITS:**

- **MAPRAT is > 1.0.**
- **MLCPR is > 1.0.**
- **MFLPD is > 1.0.**

Standard: Notifies Shift Management that MFLCPR and MFLPD are out of specification.

Cue: Acknowledge notification.

Comments:

SAT UNSAT Comment Number

11 8.6 Notify Shift Management of surveillance completion.

Standard: Notifies Shift Management of surveillance completion. Enters stop date, stop time, and initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue: Acknowledge notification.

Comments:

SAT UNSAT Comment Number

12 8.7 A copy of 3D Case used shall be signed, dated, labeled "9820.01", and attached to CPS 9820.01D001, Power Distribution Limits Data Sheet.

Standard: Attaches a signed, dated, labeled copy of the 3D Case used to CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments:

SAT UNSAT Comment Number

TERMINATING CUES:

Daily surveillance CPS 9820.01, Power Distribution Limits is complete.

STOP TIME: _____

K/A REFERENCE NUMBERS			
		Importance Rating	
K/A System Number	K/A Number	RO	SRO
Generic	2.1.19	3.0	3.0

JPM NUMBER: 011298J001 **REVISION: 01**

INITIATING CUE

You are directed to perform the daily surveillance CPS 9820.01, Power Distribution Limits. Report when the task is complete.

PAGE 1

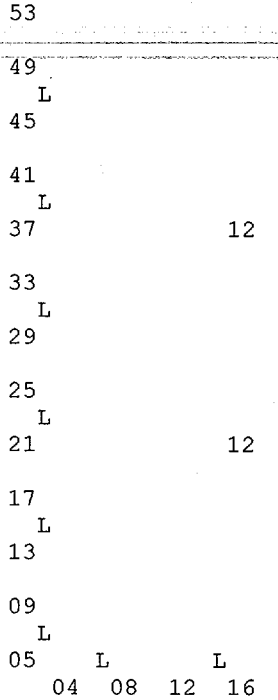
			CLINTON CYCLE 9	SEQUENCE NO 23	
CORE PARAMETERS			3D MONICORE	8-JUN-2002 17:58	CALCULATED
POWER	MWT	2890.	PERIODIC LOG	8-JUN-2002 17:59	PRINTED
POWER	MWE	967.		CASE ID	FMLD1950708205855
FLOW	MLB/HR	76.102	CALC RESULTS	RESTART	FMLD1950708195845
FPAPDR		0.824		LPRM SHAPE - FULL CORE	
SUBC	BTU/LB	23.49	Keff 1.0000		
PR	PSIa	1027.9	XE WORTH % -2.52	LOAD LINE SUMMARY	
CORE	MWD/sT	20850.8	XE/RATED 1.00	CORE POWER	83.2%
CYCLE	MWD/sT	8741.6		CORE FLOW	90.0%
MCPR		1.236		LOAD LINE	89.9%

CORRECTION FACTOR: MFLCPR= 1.000 MFLPD= 1.000 MAPRAT= 0.999
OPTION: ARTS DUAL LOOP MANUAL FLOW MCPRLIM= 1.240

MOST LIMITING LOCATIONS (NON-SYMMETRIC)

MFLCPR	LOC	MFLPD	LOC	MAPRAT	LOC	PCRAT	LOC
1.003	37-28	1.002	17-22-18	0.821	7-28- 5	0.798	41-28-16
1.001	39-26	0.912	7-28- 5	0.817	15-30-16	0.798	19-28-16
0.996	41-28	0.912	41-28-16	0.817	11-22-13	0.797	7-28- 5
0.973	11-28	0.902	19-28-16	0.816	19-26-16	0.791	39-22-20
0.940	13-32	0.896	15-38-18	0.813	19-30-15	0.782	9-22-13
0.939	9-26	0.895	21-26-16	0.803	7-26-12	0.779	11-20-13
0.937	11-20	0.893	17-26-16	0.802	9-36-13	0.779	17-26-16
0.930	39-22	0.889	9-22-13	0.798	11-30-11	0.777	11-28-15
0.927	7-28	0.889	11-20-13	0.796	9-26- 5	0.776	13-32-16
0.923	9-22	0.888	13-32-16	0.795	39-22-20	0.774	47-26-12

SEQ. B-2 C=MFLCPR D=MFLPD M=MAPRAT P=PCRAT *=MULTIPLE



CORE AVE AXIAL NOTCH	REL PW	LOC
00	0.238	25
02	0.446	24
04	0.804	23
06	0.963	22
08	1.056	21
10	1.158	20
12	1.191	19
14	1.163	18
16	1.182	17
18	1.220	16
20	1.215	15
22	1.187	14
24	1.212	13
26	1.207	12
28	1.181	11
30	1.170	10
32	1.166	09
34	1.131	08
36	1.085	07
38	1.072	06
40	1.050	05
42	0.998	04
44	0.920	03
46	0.749	02
48	0.237	01

CORE AVERAGE RADIAL POWER DISTRIBUTION

RING #	1	2	3	4	5	6	7
REL PW	0.890	1.084	1.113	1.102	1.155	1.145	0.727

JPM NUMBER: 011298J001 **REVISION: 01**

CALIBRATED LPRM READINGS

8-JUN-2002 17:58 CALCULATED
8-JUN-2002 17:59 PRINTED
CASE ID FMLD1950708205855
LPRM SHAPE - FULL CORE

47D		40.1	49.8	55.7	45.9	30.2
C		57.0	59.8	60.3	64.5	43.0
B		61.2	63.6	60.9	69.2	41.9
A		51.1	54.9	49.5	63.0	27.7
39D	35.4	51.3	58.4	61.1	57.5	46.0
C	55.8	62.7	60.3	59.6	66.5	67.9
B	60.0	65.2	60.7	57.0	66.7	70.2
A	52.7	61.1	50.4	44.4	54.7	63.8
31D	39.9	51.6	55.8	56.0C	55.7	48.5
C	63.7	71.1	68.3	63.1	72.6P	70.4
B	69.6	71.2	66.7	59.2	72.9	73.4
A	67.6M	69.0	61.1	45.4	71.1	71.8
23D	40.0	54.3	58.1	57.9	59.5	48.0
C	62.2	67.3D	63.7	59.2	66.8	69.0
B	67.1	67.1	61.4	56.9	66.6	71.1
A	66.5	58.6	48.7	44.2	55.6	66.1
15D	28.5	46.2	55.5	57.2	0.0	39.4
C	42.4	63.6	62.8	59.1	65.4	59.1
B	43.2	68.6	61.9	57.4	67.6	62.2
A	0.0	61.7	49.9	44.3	64.3	50.4
07D		29.1	39.3	40.7	36.6	
C		41.4	58.6	56.6	54.5	
B		42.3	64.8	61.8	58.3	
A		31.2	57.2	55.6	48.4	
	06	14	22	30	38	46

OF TIPS REJECTED: 1

FAILED SENSORS:
LPRM (2 SIGNAL FAILED)
615A 3815D
LPRM (0 PANACEA REJECTED)
OTHER SENSORS (0 TOTAL)
SUB RODS
NONE

T = TIP RUN RECOMMENDED
C = MFLCPR LOCATION
M = MAPRAT LOCATION
D = MFLPD LOCATION
P = PCRAT LOCATION
* = MULTIPLE LIMIT

CORE SUMMARY

CORE POWER	83.2%	CALC SUB FLOW	91.3%	DP MEAS PSI	15.52
CORE FLOW	90.0%	OPER SUB FLOW	-1.2%	DP CALC PSI	20.52
LOAD LINE	89.9%	FLOW BASIS	MEAS	FEEDWTR FLOW MLB/HR	12.35

APRM CALIBRATION

	A	B	C	D
READING	83.7	83.9	83.5	83.5
AGAF	0.994	0.992	0.997	0.997

TIP RUNS RECOMMENDED
STRINGS: NONE

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.1.a.2

Revision Number: 00

Date: 04/16/2002

Developed By:	**C Ware**	**4/16/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: RO A.1.a.2 **REVISION:** 00

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 – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

JPM NUMBER: RO A.1.a.2 **REVISION:** 00

Revision Record (Summary)

Revision	Date	Description
00	04/16/2002	This is a new RO Administrative JPM.

CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: RO A.1.a.2 **REVISION:** 00

Operator's Name: _____

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

JPM Title: Determine if Fuel Movement Can Continue (One SRM Reading < 3 cps) – Faulted
JPM Number: ILT0101-RO-A.1.a.2
Revision Number: 00
Task Number and Title: 900003.01 / Complete Control Room Actions to Perform the Core Alteration Surveillance Log

K/A Number Generic 2.1.31 Importance 4.2

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 3703.01, Core Alterations
CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet
CPS 9000.03, Core Alteration Surveillance Log

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: RO A.1.a.2 **REVISION:** 00

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:

Place simulator in a S/D or Refuel IC. Verify that the Mode Switch is locked in Refuel with key removed. Verify that all control rods are fully inserted. I/O so SDC apears Linedup return to the fuel pool. Withdraw SRM 'D' untill it reads less than 3 counts, override the retract not permitted alarm, stick the D SRM and I/O the SRM "in" light on when the retract power pushputton is depressed. Replicate communication setup between the Control Room and refuel platform.

TASK STANDARDS:

- Perform CPS 9000.03, Core Alteration Surveillance Log with no deviation from the procedure.
- Determines that data does not meet the acceptance criteria and reports this to Shift Management.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

CPS 9000.01D002, Control Room Surveillance Log – Mode 4, 5 Data Sheet (only Step 8.4.1 page with partially filled in information)
CPS 9000.03, Core Alteration Surveillance Log

PROCEDURAL/REFERENCES:

CPS 3703.01, Core Alterations
CPS 9000.01D002, Control Room Surveillance Log – Mode 4, 5 Data Sheet
CPS 9000.03, Core Alteration Surveillance Log

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

The reactor plant is in Mode 5. Core alterations are in progress in the North East quadrant. Thirty-five bundles are installed in the quadrant. Shift turnover is occurring. You have assumed the watch on Day shift. You are directed to perform CPS 9000.03, Core Alteration Surveillance Log before the next bundle is moved. 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

9000.03 Core Alteration Surveillance Log

1 5.2 Notify Shift Management of the start of this test.

Standard: Notifies Shift Management of the start of this test.
Cue: Acknowledge notification.
Comments:

SAT UNSAT Comment Number

2 8.1 Verify the following checks are current:

- Prior to CORE ALTERATIONS; and
- Prior to resuming CORE ALTERATIONS following an exit from the CORE ALTERATIONS MODE.
- Thereafter, perform steps 8.1.1, 8.1.2, 8.1.3 and 8.1.4 shiftly (refer to step 2.1.2), and steps 8.1.5 and 8.1.6 daily.

Standard: Determines that steps 8.1.1, 8.1.2, 8.1.3, and 8.1.4 need to be completed.
Cue:
Comments: Initiating cue provided that core alterations are in progress and the shift is Day Shift.

SAT UNSAT Comment Number

NOTE

Steps 8.1.1 through 8.1.6 may be performed concurrently or in any logical order.

3 8.1.1 Reactor Mode Selector Switch is locked in the Refuel Position (with the key removed).

Standard: Verifies Reactor Mode Selector Switch is locked in the Refuel Position (with the key removed).

Cue:

Comments:

SAT UNSAT Comment Number

4 8.1.2 All Control Rods are fully inserted.

Standard: Verifies all Control Rods are fully inserted.

Cue:

Comments:

SAT UNSAT Comment Number

*5 **8.1.3** **Verify operability of the required SRMs.**

1. Verify SRM portion of CPS 9000.01D002, Control Room Operator Surveillance Log - Mode 4, 5 Data Sheet is current for the SRMs required to satisfy the sub-step 2 below.

Standard: Determines that SRM 'D' is reading downscale (less than 3 cps). Notifies Shift Management that SRM 'D' is less than 3 cps.

Cue: Inform examinee that they will need to complete the SRM portion (Step 8.4.1) of CPS 9000.01D002, Control Room Operator Surveillance Log - Mode 4, 5 Data Sheet and hand the examinee the sheet from CPS 9000.01D002.

Acknowledge Shift Management notification.

Comments: Shift Management notification (CPS 9000.03 Limitation 6.2). The examinee may complete the entire CPS 9000.03 Step 8.1.3 prior to making the notification.

SAT UNSAT Comment Number

*6 8.1.3 **Verify operability of the required SRMs.**

2. Verify an OPERABLE SRM detector is located in:

2. The core quadrant where CORE ALTERATIONS are being performed when the associated SRM is included in the fueled region; and

Standard: Determines that SRM 'D' is in the same quadrant as core. Notifies Shift Management that SRM 'D' is located in same quadrant as core alterations.

Cue: Acknowledge Shift Management notification.

Comments: Shift Management notification (CPS 9000.03 Limitation 6.2). The examinee may complete the entire CPS 9000.03 Step 8.1.3 prior to making the notification.

SAT UNSAT Comment Number

---

7 8.1.3 Verify operability of the required SRMs.

2. Verify an OPERABLE SRM detector is located in:

3. A core quadrant, adjacent to where CORE ALTERATIONS are being performed, when the associated SRM is included in the fueled region.

Standard: Determines that adjacent quadrants have operable SRMs.

Cue:

Comments:

SAT UNSAT Comment Number

8	8.1.4	Verify direct communication between the Control Room and the refuel platform personnel during CORE ALTERATIONS, except during movement of control rods with their normal drive system.

Standard: Verifies direct communication between the Control Room and the refuel platform personnel during CORE ALTERATIONS.

Cue: Acknowledge communication verification.

Comments: Initiating cue provided that core alterations are in progress.

SAT UNSAT Comment Number

11	8.2		(Record) Finish time of CPS 9000.03.
		Standard:	Records finish time of CPS 9000.03.
		Cue:	
		Comments:	

SAT UNSAT Comment Number

TERMINATING CUES:

CPS 9000.03, Core Alteration Surveillance Log is complete.
Shift Management notified that data does not meet the acceptance criteria

STOP TIME: _____

K/A REFERENCE NUMBERS			
		Importance Rating	
K/A System Number	**K/A Number**	**RO**	**SRO**
Generic	2.1.31	4.2	3.9

JPM NUMBER: RO A.1.a.2 **REVISION:** 00

INITIATING CUE

The reactor plant is in Mode 5. Core alterations are in progress in the North East quadrant. Thirty-five bundles are installed in the quadrant. Shift turnover is occurring. You have assumed the watch on Day shift. You are directed to perform CPS 9000.03, Core Alteration Surveillance Log before the next bundle is moved. Report when the task is complete.

CORE ALTERATION SURVEILLANCE LOG

SCOPE OF REVISION:

- Periodic review and format update.
- Revised required RPV water level for step 8.1.5 from 23 ft. to 22 ft. 8 in. per ITS Amendment 133.
- Revised old step 8.2 (now 8.2 and 8.3) to record time of completion and document Shift Management review shiftly.

CONTINUOUS USE

ORIGINATOR: *David W. Reeser* **CLASS CODE:** *SNNN*

ITR: *Tomas J. Landin* **APPROVAL DATE:** *OCT 13 2000*

CURRENT CHANGES TO GENERAL REVISION

	Change #	*Date*	*List of Affected Pages*
1			
2			
3			
4			
5			

2.2.2 CORE ALTERATIONS MODE: inclusive combination of plant conditions which satisfy Technical Specifications for performing Core Alterations.

8.0 **PROCEDURE**

Date: X/Y/Z Time: XX:XX / /

8.1 Verify the following checks are current:

- Prior to CORE ALTERATIONS; and
- Prior to resuming CORE ALTERATIONS following an exit from the CORE ALTERATIONS MODE.
- Thereafter, perform steps 8.1.1, 8.1.2, 8.1.3 and 8.1.4 shiftly (refer to step 2.1.2), and steps 8.1.5 and 8.1.6 daily.

NOTE

Steps 8.1.1 through 8.1.6 may be performed concurrently or in any logical order.

❶ 8.1.1 Reactor Mode Selector Switch is locked in the Refuel Position (with the key removed). *«LBD-2»* ww / /

8.1.2 All Control Rods are fully inserted. *«LBD-3»* ww / /

❶ 8.1.3 Verify operability of the required SRMs. *«LBD-1»*

❶ 1. Verify SRM portion of CPS 9000.01D002, Control Room Operator Surveillance Log - Mode 4,5 Data Sheet is current for the SRMs required to satisfy the sub-step 2 below. ww / /

2. Verify an OPERABLE SRM detector is located in:

1. The fueled region; and ww / /

2. The core quadrant where CORE ALTERATIONS are being performed when the associated SRM is included in the fueled region; and ww / /

3. A core quadrant, adjacent to where CORE ALTERATIONS are being performed, when the associated SRM is included in the fueled region. ww / /

9.0 **ACCEPTANCE CRITERIA**

9.1 **Operability Requirements**

NOTE

Failure to meet the Acceptance Criteria shall constitute a failure to comply with the applicable LCO. ITS should be immediately reviewed to identify Action Statements needed for implementation. Refer to Supplemental Review Sheet for applicable LCOs.

9.1.1 Items in section 8.0 of CPS 9000.03 are satisfactory.

9.2 **Other Requirements** - None

10.0 **FINAL CONDITIONS** - None

11.0 **REFERENCES**

11.1 **Licensing Basis Documents**

11.1.1 LBD-1: SR 3.3.1.2.2 (8.1.3)

11.1.2 LBD-2: SR 3.9.2.1 (8.1.1)

11.1.3 LBD-3: SR 3.9.3.1 (8.1.2)

11.1.4 LBD-4: SR 3.9.6.1 (8.1.5)

11.1.5 LBD-5: SR 3.9.7.1 (8.1.6)

11.1.6 LBD-6: ORM TR 4.6.2 (8.1.4)

11.2 **Procedures**

CPS 3007.01, Preparation For And Recovery From Refueling Operations

11.3 **Design/Vendor/Print/Other** -- None

11.4 **Commitments**

CM-1: SOER 82-01, Radiation Overexposure of Maintenance Personnel

12.0 **APPENDICES** - None

13.0 **DOCUMENTS** - None

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5 DATA SHEET

SCOPE OF REVISION:

- Periodic review and format update per CPS 1005.00/01/02 criteria. Major layout updates to match improvements in D001.
- 8.4.1: Benchmarked BWROG SRM Channel Check Comparison Guideline added per RF6 Restart OPs Self Assessment (CCF 00-0081: Westbrook).
- 8.4.7.b: Use of CM indication updated to match approved PDR 99-1254 on D001 .
- 8.12: Changed order of occurrence of AR/PR monitors to match AR/PR LAN printout for ease of use by operators. Matches D001 layout.
- 8.12: Removed Rad Monitor 0RIX-PR040 CK, covered in 9911.50 (CCF 99-1974).
- 8.12.12: Allows use of the Meteorological Data Recorders as alternative instruments to satisfy ORM 4.2.8.1 channel check requirements (matches PDR 99-1151 to D001).

❶ Specific Rev. 35a [Landin]: Editorial - Page 9 Heading off-center, corrected. 8.12 area size increased per OPs request to match D001 layout.

❷ Specific Rev. 35b [Landin] - EDITORIAL
° CR 79830-07 - 8.12.34-37: added check of supporting Ch 14 not deleted.

CONTINUOUS USE

ORIGINATOR: *Thomas J. Landin* **CLASS CODE:** *SNND1*

ITR: *B. Brehm* **APPROVAL DATE:** *MAR 09 2000*

CURRENT CHANGES TO GENERAL REVISION

	Change #	Date	List of Affected Pages
❶	35a	05/07/01	1, 9, 10, 11, 12, 13
❷	35b	01/10/02	1, 12
❸			
❹			
❺			

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5

MON	TUE	WED	THU	FRI	SAT	SUN
	TODAY					

8.4 INSTRUMENTATION

8.4.1 Source Range Monitors (SRM)

❶ SRM Comparison Guideline:

3 to 500 cps when all rods are inserted.

If a channel is > 500 cps, refer to CPS 1401.09 to evaluate channel operability.

1. MODE 4 [DAYs only]

a) Record/Verify ≥ 3.0 cps. Use DCS Display. Verify SRMs full in. (≥ 2 channels) (ITS SR 3.3.1.2.4 T1)

SRM Channel							
A	NA cps	____cps	____cps	____cps	____cps	____cps	____cps
B	____cps	____cps	____cps	____cps	____cps	____cps	____cps
C	____cps	____cps	____cps	____cps	____cps	____cps	____cps
D	____cps	____cps	____cps	____cps	____cps	____cps	____cps

b) (Initial) Channel Check SRM indications.
• 1H13-P678 • DCS (flux & period)
(ITS SR 3.3.1.2.3 T1)

X/NA /X	X/ /X	X/ /X	X/ /X	X/ /X	X/ /X	X/ /X

2. MODE 5 [Shiftly]

a) Record/Verify ≥ 3.0 cps. Use DCS Display. Verify SRMs full in. (≥ 2 channels) (ITS SR 3.3.1.2.4 T1)

SRM Channel							
Mids A	38 cps	22 cps	____cps	____cps	____cps	____cps	____cps
Mids B	22 cps	19 cps	____cps	____cps	____cps	____cps	____cps
Mids C	44 cps	16 cps	____cps	____cps	____cps	____cps	____cps
Mids D	27 cps	6 cps	____cps	____cps	____cps	____cps	____cps

b) Record/Verify ≥ 3.0 cps. Use DCS Display. Verify SRMs full in. (≥ 2 channels) (ITS SR 3.3.1.2.4 T1)

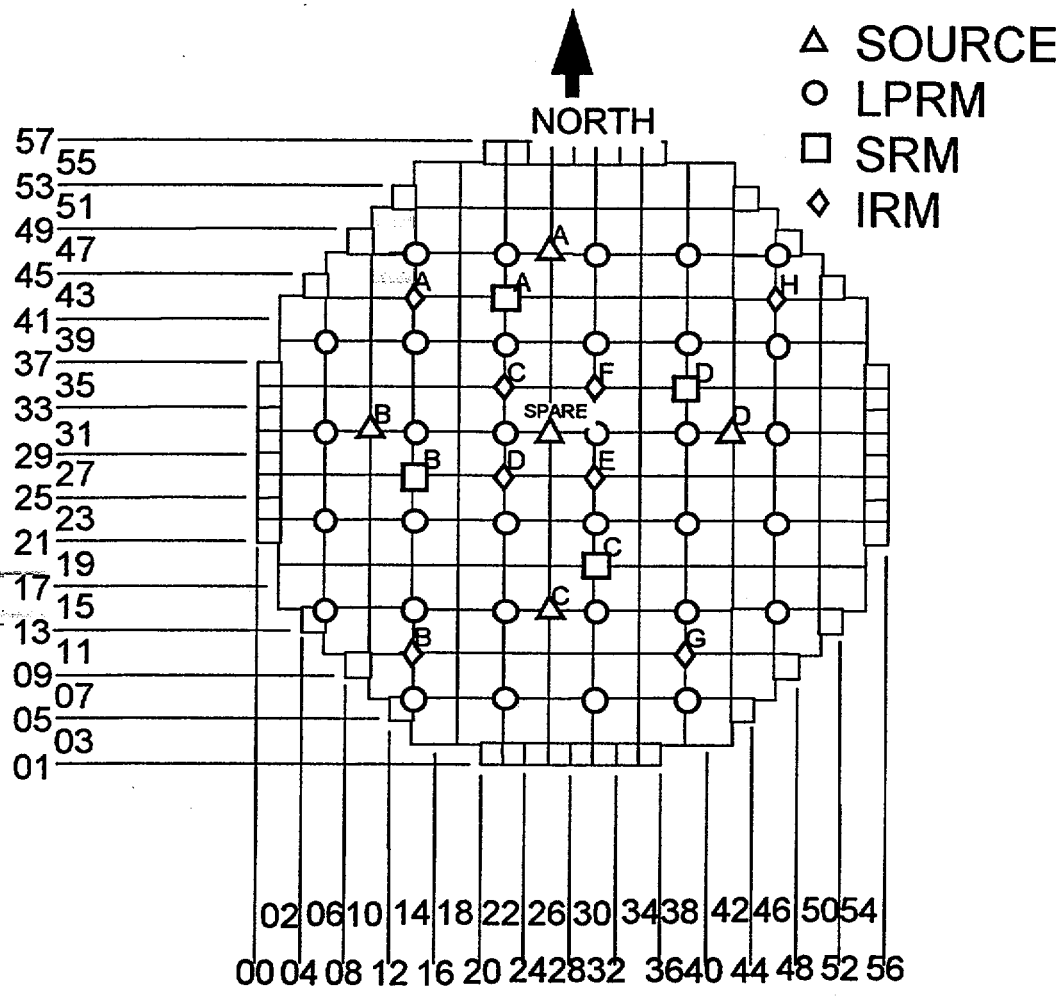
SRM Channel							
Days A	29 cps	____cps	____cps	____cps	____cps	____cps	____cps
Days B	19 cps	____cps	____cps	____cps	____cps	____cps	____cps
Days C	38 cps	____cps	____cps	____cps	____cps	____cps	____cps
Days D	20 cps	____cps	____cps	____cps	____cps	____cps	____cps

c) Record/Verify ≥ 3.0 cps. Use DCS Display. Verify SRMs full in. (≥ 2 channels) (ITS SR 3.3.1.2.4 T1)

SRM Channel							
Swings A	24 cps	____cps	____cps	____cps	____cps	____cps	____cps
Swings B	21 cps	____cps	____cps	____cps	____cps	____cps	____cps
Swings C	19 cps	____cps	____cps	____cps	____cps	____cps	____cps
Swings D	6 cps	____cps	____cps	____cps	____cps	____cps	____cps

d) (Initial) Channel Check SRM indications.
• 1H13-P678 • DCS (flux & period)
(ITS SR 3.3.1.2.1 T1)

NA /	/ /	/ /	/ /	/ /	/ /	/ /



SOURCE AND DETECTOR LOCATIONS

C+2 Shop

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.2.2

Revision Number: 00

Date: 04/24/2002

Developed By:	**Paul M. Higginbotham**	**4/24/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: RO A.2.2 **REVISION:** 00

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

JPM NUMBER: RO A.2.2 **REVISION:** 00

Operator's Name: _____
Job Title: ■ RO

JPM Title: Calculate Reactor Coolant System Leakage
JPM Number: RO A.2.2
Revision Number: 00
Task Number and Title: 900001.01, Complete Control Room Actions to Perform the Control Room Surveillance Log

K/A Number: A2.2.12 Importance 3.0

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References: CPS 9000.01, CONTROL ROOM SURVEILLANCE LOG, Revision 33
CPS 9000.01D001, CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3, DATA SHEET, Revision 46, Section 8.10

JPM NUMBER: RO A.2.2 **REVISION:** 00

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: RO A.2.2 **REVISION:** 00

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

Initialize in a Mode 1 IC.
Turn the recorders OFF.
Present the attached, completed copy of CPS 9000.01D001, Control Room Surveillance Log – Mode 1, 2, 3 Data Sheet, Section 8.10.2 to the examinee for calculation of DW Floor Drain Sump Flow Rate.

TASK STANDARDS:

Reactor Coolant Leakage verification and calculation has been performed per CPS 9000.01D001, Control Room Surveillance Log – Mode 1, 2, 3 Data Sheet, Section 8.10.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 9000.01, CONTROL ROOM SURVEILLANCE LOG, Revision 33
CPS 9000.01D001, CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3, DATA SHEET, Revision 46, Section 8.10

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

It is 16:00 hrs on the Swing shift and CPS 9000.01D001, Control Room Surveillance Log – Mode 1, 2, 3, is in progress. The CRS has directed you to perform verification and calculation of Reactor Coolant leakage, Drywell Floor Drain Sump section, using CPS 9000.01D001, Control Room Surveillance Log – Mode 1, 2, 3.

Other operators are performing the remaining sections of CPS 9000.01D001.

START TIME: _____

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS 9000.01D001

***1.**	**Locate Drywell Floor Drain flow recorders and totalizers at 1H13-P855.**
Standard	Proceeds to P855 and locates DW FLR DRN FLOW recorders and totalizers.
CUE	If asked, recorders 1E31-R551 and 1E31-R552, and the totalizers are operable.
Comments	The recorders are de-energized to allow the evaluator to provide values from the recorders and totalizers when asked.
	SAT UNSAT Comment Number

***2. 8.10.1.b**	**Record DW FLR FLOW FROM SUMP TOTAL.**
Standard	Obtains value from totalizer and records per 8.10.1.b).
CUE	When asked, DW FLR FLOW FROM SUMP TOTAL is reading 054307.
Comments	
	SAT UNSAT Comment Number

***3. 8.10.2.c**	**Record DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1.**
Standard	Obtains value from 1E31-R552, Channel 1 and records per 8.10.2.c).
CUE	When asked, cue that 1E31-R552, Channel 1 is reading 2.3.
Comments	1E31-R552, Channel 1 is preferred source.
	SAT UNSAT Comment Number

4.	8.10.2.d 8.10.2.e	Verify current DW Floor Drain flow is within limits and initial applicable space per 8.10.2.d and 8.10.2.e.
Standard		Compares DW Floor Drain flow reading from 8.10.2.c with limits stated in 8.10.2.d and 8.10.2.e. Determines the stated limits have not been exceeded.
CUE		
Comments		
		SAT UNSAT Comment Number

***5.**	**8.10.3.b**	**Perform Unidentified Leakage calculation per 8.10.3:** **b. Record current value of DW FLR FLOW SUMP TOTAL from 8.10.1.b**
Standard		The current value of DW FLR FLOW SUMP TOTAL from 8.10.1.b is recorded in the appropriate space.
CUE		
Comments		Should record 054307
		SAT UNSAT Comment Number

***6**	**8.10.3.c**	**Record the value of DW FLR FLOW SUMP TOTAL taken ~24 before**
Standard		The value of DW FLR FLOW SUMP TOTAL taken ~24 before is recorded in the appropriate space.
CUE		
Comments		Should record 051043
		SAT UNSAT Comment Number

***7.**	**8.10.3.d)**	**Record total number of gallons by subtracting c) from b).**
Standard		Performs 054307 – 051043 and records 3264
CUE		
Comments		Should record 3264 gal
		SAT UNSAT Comment Number

***8.**	**8.10.3.e)**	**Record the number of minutes since reading ~24 hours before (from 8.10.3.c)**
Standard		The number of minutes since reading of ~ 24 hrs before is recorded.
CUE		
Comments		Should record 1440 min
		SAT UNSAT Comment Number

***9.**	**8.10.3.f)**	**Record flow rate since last reading: Reading from d) divided by elapsed time e)**
Standard		Performs 3264 ÷ 1440 and records 2.27 gpm in the appropriate space
CUE		
Comments		Should record 2.27 gpm
		SAT UNSAT Comment Number

10.	8.10.3.g)	Record the DW FLR DRN (SUMP) FLOW, LOW RANGE from Recorder 1E31-R552, Channel 1.
Standard		Records 2.3 in the appropriate space.
CUE		If asked to confirm, cue that 1E31-R552, Channel 1 reading is 2.3
Comments		Examinee may request confirmation that 1E31-R552, Channel 1 reading is 2.3, or may enter value from 8.10.2.c).
		SAT UNSAT Comment Number

11.	8.10.3.h	Record the DW FLR DRN (PUMP) FLOW, LOW RANGE from Recorder 1E31-R551, Channel 1.
Standard		Locates 1E31-R551Channel 1 and requests current value.
		Records the cued value in the appropriate space.
CUE		When asked, cue that Recorder 1E31-R551, Channel 1 is reading 2.3
Comments		
		SAT UNSAT Comment Number

12.	8.10.3.i)	Perform Channel Check of the calculated DW Floor Drain Sump flow rate [Step f) above] and DW FLOOR DRAIN (SUMP) and (PUMP) FLOW rates [from g) and h) above]. Enter initials in appropriate space. Comparison Guideline: 1.4 gpm
	Standard	Compares flow value calculated in 8.10.3.f) with values obtained from recorders 1E31-R552 and 1E31-R551 in 8.10.e.g) and 8.10.3.h). Determines the Comparison Guideline of 1.4 gpm has not been exceeded. Enters initials in the appropriate space.
	CUE	
	Comments	
		SAT UNSAT Comment Number

TERMINATING CUES:

DW Floor Drain leakage calculations are completed and determination made that no unidentified leakage limits have been exceeded.

STOP TIME: _____

JPM NUMBER: RO A.2.2 **REVISION: 00**

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
GENERIC	2.2.12	3.0	3.4

INITIATING CUE

It is 16:00 hrs on the Swing shift and CPS 9000.01D001, Control Room Surveillance Log – Mode 1, 2, 3, is in progress. The CRS has directed you to perform verification and calculation of Reactor Coolant leakage, Drywell Floor Drain Sump section, using CPS 9000.01D001, Control Room Surveillance Log – Mode 1, 2, 3.

Other operators are performing the remaining sections of CPS 9000.01D001.

lastpage

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3

CPS 9000.01D001

MON	TODAY	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE

NOTE

CPS 4001.01, Reactor Coolant Leakage shall be entered if any of the following leakage rates are observed:

- *Any ITS LCO 3.4.5 RCS Operational LEAKAGE limitation is exceeded.*
- *Unidentified LEAKAGE increase of ≥ 0.5 gpm in a 4 hour period (1.0 gpm in 8 hours).*
- *Unidentified LEAKAGE exceeds 2.5 gpm.*

1. (Record) Flow Readings From 1H13-P855
(at ≈ 8 hour intervals)

a) Time readings taken

M	0000	0005					
D	0800	0800					
S	1600	1600					

b) DW FLR FLOW FROM SUMP TOTAL (ITS LCO 3.4.5 (a))
If the Sump (bubblier level) Flow Detector totalizer in step 8.10.1.b is not functioning, use alternate Pump (magnetic motor) Flow Detector totalizer data in step 8.10.1.c for unidentified leakage calculations

M	048931	052009					
D	049987	053155					
S	051043						

c) DW FLR FLOW PMP DISCH TOTAL (ITS LCO 3.4.5 (a))

M	NA	NA					
D	NA	NA					
S	NA						

d) DW EQUIP FLOW (ITS LCO 3.4.5 (a))
If DW Equip Flow Totalizer is not functioning, a Manual Determination of DW RE In-Leakage Flow Rate shall be performed using methodology described in CPS 3315.02, Leak Detection (LD) and recorded in step 8.10.4.g.1.

M	NA	NA					
D	NA	NA					
S	NA						

MON	TODAY	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

2. DW Floor Drain Sump Flow Rate Verifications (at ≈ 8 hour intervals)

a) Check instrument used:

If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.

X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP

b) (Record - Monday only) Enter the DW FLR DRN FLOW, LOW RANGE values from Sunday. (From step 8.10.2.c)

M	2.1						
D	2.1						
S	2.2						

c) (Record) Enter the DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1, or alternate DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1.

M	2.2	2.3					
D	2.2	2.3					
S	2.2						

d) (Initial) (MODE 1) Verify current DW Floor Drain/ flow rate is ≤ 2 gpm above any reading of the previous 24 hours. (ITS SR 3.4.5.1)

M	DS	DS					
D	BR	BR					
S	JG						

e) (Initial) Verify ≤ 5 gpm on DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552 Channel 1 or alternate DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1. (ITS SR 3.4.5.1)

M	DS	DS					
D	BR	BR					
S	JG						

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

3. Unidentified Leakage Calculation using Flow Totalizer

a) Check instrument used:

If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.

b) (Record) The current value of DW FLR FLOW SUMP TOTAL from step 8.10.1.b or alternate DW FLR FLOW PMP DISCH TOTAL from step 8.10.1.c.

c) (Record) The value of DW FLR SUMP FLOW taken ≈ 24 hours before (DW FLR FLOW PMP DISCH TOTAL, alternate)

Sunday's value: 045907 / 046915 / 047923

d) (Record) The total number of gallons by subtracting c) from b).

e) (Record) The number of minutes since reading in item c).

f) (Record) Flow rate since last reading: Reading from d) divided by elapsed time e).

	MON	TODAY	WED	THU	FRI	SAT	SUN
	X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP
M							
b)	048931	052099					
c)	045907	048931					
d)	3024	3168					
e)	1440	1445					
f)	2.10	2.19					
D							
b)	049987	053155					
c)	046915	049987					
d)	3072	3168					
e)	1440	1440					
f)	2.13	2.2					
S							
b)	051043						
c)	047923						
d)	3120						
e)	1440						
f)	2.17						

			MON	TODAY	WED	THU	FRI	SAT	SUN
8.10	REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)								
g)	(Record) Enter the	M	2.1	2.3					
	DW FLR DRN (SUMP) FLOW, LOW RANGE	D	2.1	2.3					
	from recorder 1E31-R552, Channel 1.	S	2.2						
h)	(Record) Enter the	M	2.2	2.4					
	DW FLR DRN (PUMP) FLOW, LOW RANGE	D	2.2	2.4					
	from recorder 1E31-R551, Channel 1.	S	2.2						
3.	Unidentified Leakage Calculation using Flow Totalizer (cont'd)								
i)	(Initial) Perform Channel Check of the calculated DW Floor Drain Sump flow rate (Step f above) and DW FLOOR DRAIN (SUMP) and (PUMP) FLOW rates (g and h above).		DS/BR/JG	DS/BR/	/ /	/ /	/ /	/ /	/ /

Comparison Guideline: 1.4 gpm

If MODE of operation of Sump Pumps (auto/manual) is changed, then at least 2 pump out cycles must occur before a reliable Channel Check can be performed.

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3

CPS 9000.01D001

MON	TODAY	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE

KEY

NOTE

CPS 4001.01, Reactor Coolant Leakage shall be entered if any of the following leakage rates are observed:

- *Any ITS LCO 3.4.5 RCS Operational LEAKAGE limitation is exceeded.*
- *Unidentified LEAKAGE increase of ≥ 0.5 gpm in a 4 hour period (1.0 gpm in 8 hours).*
- *Unidentified LEAKAGE exceeds 2.5 gpm.*

1. (Record) Flow Readings From 1H13-P855
(at ≈ 8 hour intervals)

a) Time readings taken

M	0000	0005					
D	0800	0800					
S	1600	1600					

b) DW FLR FLOW FROM SUMP TOTAL
(ITS LCO 3.4.5 (a))
If the Sump (bubblier level) Flow Detector totalizer in step 8.10.1.b is not functioning, use alternate Pump (magnetic motor) Flow Detector totalizer data in step 8.10.1.c for unidentified leakage calculations

M	048931	052009					
D	049987	053155					
S	051043	54307					

c) DW FLR FLOW PMP DISCH TOTAL
(ITS LCO 3.4.5 (a))

M	NA	NA					
D	NA	NA					
S	NA	NA					

d) DW EQUIP FLOW
(ITS LCO 3.4.5 (a))
If DW Equip Flow Totalizer is not functioning, a Manual Determination of DW RE In-Leakage Flow Rate shall be performed using methodology described in CPS 3315.02, Leak Detection (LD) and recorded in step 8.10.4.g.1.

M	NA	NA					
D	NA	NA					
S	NA	NA					

MON	TODAY	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

KEY

2. DW Floor Drain Sump Flow Rate Verifications (at ≈ 8 hour intervals)

a) Check instrument used:

If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.

X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP

b) (Record - Monday only) Enter the DW FLR DRN FLOW, LOW RANGE values from Sunday. (From step 8.10.2.c)

M	2.1						
D	2.1						
S	2.2						

c) (Record) Enter the DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1,
or alternate
DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1.

M	2.2	2.3					
D	2.2	2.3					
S	2.2	2.3					

d) (Initial) (MODE 1) Verify current DW Floor Drain/ flow rate is ≤ 2 gpm above any reading of the previous 24 hours. (ITS SR 3.4.5.1)

M	DS	DS					
D	BR	BR					
S	JG	INITIALS					

e) (Initial) Verify ≤ 5 gpm on DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552 Channel 1
or alternate
DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1. (ITS SR 3.4.5.1)

M	DS	DS					
D	BR	BR					
S	JG	INITIAL					

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3

CPS 9000.01D001

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

KEY

3. Unidentified Leakage Calculation using Flow Totalizer

a) Check instrument used:

If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.

b) (Record) The current value of DW FLR FLOW SUMP TOTAL from step 8.10.1.b or alternate DW FLR FLOW PMP DISCH TOTAL from step 8.10.1.c.

c) (Record) The value of DW FLR SUMP FLOW taken ≈ 24 hours before (DW FLR FLOW PMP DISCH TOTAL, alternate)

Sunday's value: 045907 / 046915 / 047923

d) (Record) The total number of gallons by subtracting c) from b).

e) (Record) The number of minutes since reading in item c).

f) (Record) Flow rate since last reading: Reading from d) divided by elapsed time e).

	MON	TODAY	WED	THU	FRI	SAT	SUN
	X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP
M							
b)	048931	052099					
c)	045907	048931					
d)	3024	3168					
e)	1440	1445					
f)	2.10	2.19					
D							
b)	049987	053155					
c)	046915	049987					
d)	3072	3168					
e)	1440	1440					
f)	2.13	~~2.2~~					
S							
b)	051043	054307					
c)	047923	051043					
d)	3120	3264					
e)	1440	1440					
f)	2.17	2.27					

		MON	TODAY	WED	THU	FRI	SAT	SUN
8.10	REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)							
g)	(Record) Enter the DW FLR DRN (SUMP) FLOW, LOW RANGE from recorder 1E31-R552, Channel 1.	M	2.1	2.3					
		D	2.1	~~2.3~~					
		S	2.2	2.3					
h)	(Record) Enter the DW FLR DRN (PUMP) FLOW, LOW RANGE from recorder 1E31-R551, Channel 1.	M	2.2	2.4					
		D	2.2	~~2.4~~					
		S	2.2	2.3					
3.	Unidentified Leakage Calculation using Flow Totalizer (cont'd)							
i)	(Initial) Perform Channel Check of the calculated DW Floor Drain Sump flow rate (Step f above) and DW FLOOR DRAIN (SUMP) and (PUMP) FLOW rates (g and h above).		DS/BR/JG	DS/BR/ INITIAL	/ /	/ /	/ /	/ /	/ /

Comparison Guideline: 1.4 gpm

If MODE of operation of Sump Pumps (auto/manual) is changed, then at least 2 pump out cycles must occur before a reliable Channel Check can be performed.

KEY

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CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.3.2

Revision Number: 00

Date: 5/23/2002

Developed By:	**B. Price**	**5/23/02**
	Instructor	**Date**
Validated By:	**B. Stalter**	**5/23/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/24/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/24/02**
	Training Department	**Date**

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CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: RO A.3.2 **REVISION:** 00

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 – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

JPM NUMBER: RO A.3.2 **REVISION:** 00

Revision Record (Summary)

Revision	Date	Description
00	04/16/2002	This is a new RO Administrative JPM.

CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: RO A.3.2 **REVISION:** 00

Operator's Name: _____

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

JPM Title: Entry requirements for a LHRA/Contaminated Area
JPM Number: RO A.3.2
Revision Number: 00
Task Number and Title:

K/A Number Generic 2.3.1 Importance 2.6

Suggested Testing Environment: Plant

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 1900.21, Radiological Controlled Area Access and Exit
RP-AA-376, Radiological Postings, Labeling, and Markings
RP-AA-376-1001, Radiological Posting, Labeling, and Marking Standard

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: RO A.3.2 **REVISION:** 00

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied. No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

Not Applicable

TASK STANDARDS:

- Demonstrate the proper method for entering a Locked High Radiation Area (LHRA) and Contamination Area (CA) for the area.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

RWP
Area survey maps (if not using current plant survey data)

PROCEDURAL/REFERENCES:

CPS 1900.21, Radiological Controlled Area Access and Exit
RP-AA-376, Radiological Postings, Labeling, and Markings
RP-AA-376-1001, Radiological Posting, Labeling, and Marking Standard

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

A report was received in the Main Control Room that there is a puddle of oil on the floor in the RWCU Pump "A"and this pump is running. Demonstrate the necessary actions to enter the pump room to locate the source of oil leakage.

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

*1 **Review current radiological survey data for their RWCU pumproom "A".**

- **Identify the intended location on the map and determine the radiological postings indicated Locked High Radiation Area (LHRA), and Contamination Area (CA) for the area.**

Standard:
- Locates and reviews current radiological survey data for the RWCU pumproom "A".
- Entry requirements on RWP10000422

Cue: Hand the examinee the RWCU pumproom "A" survey data after examinee locates current radiological survey data.

Comments: If examinee goes to RP for assistance the Map will be with the RWP

If Examinee goes to the RWCU pumproom "A" door tell the examinee it is posted as:

- Locked High Radiation Area (LHRA), and Contamination Area (CA)

SAT UNSAT Comment Number

RWP 10000422

*2 **Request a brief from RP**

Standard: RP Brief requested.

Cue: Act as RP and brief the following items:

1. Have a Minimum Remaining Allowable Dose of 100 mrem
2. RP coverage and LHRA Key(RP tech covering will provide)
3. Full set of PCs

Comments:

SAT UNSAT Comment Number

*3 **Logs onto RWP10000422 and determines remaining Allowable Dose of 100 mrem**

Standard: Examinee logs onto the RWP at the MGPAC computer

Determines has adequate dose margin of more than 100 mrem from MGPAC computer

Cue: When examinee takes action to log onto the MPAC computer:

- Tell examinee dose margin is 775 mrem
- Examinee is logged onto the RWP 10000422

Comments: Student would have demonstrated how to access the MGPAC computer during normal access to the RCA so logging onto RWP 10000422 will NOT be required or allowed

SAT UNSAT Comment Number

*4 **Request RP coverage** and LHRA Key (RP tech covering will provide)

Standard: Requests an RP technician to support and has the LHRA key

Cue: Act as RP ready to support entry and has the LHRA key

Comments: RP would be responsible for the LHRA Key and is not critical

SAT UNSAT Comment Number

*5 **Locates/Obtains full set of PCs**

Standard: Examinee demonstrates by showing where to acquire each of the listed items

1. Coveralls
2. Hood
3. Cotton glove liners
4. Gloves
5. Shoe covers
6. Rubber Boots

Cue: Once all steps for demonstrating access are completed tell the student the JPM is complete

Comments:

SAT UNSAT Comment Number

TERMINATING CUES:

Has demonstrated the access requirements for entry to a Locked High Radiation Area (LHRA), and Contamination Area (CA) for the area.

STOP TIME: _____

K/A REFERENCE NUMBERS			
		Importance Rating	
K/A System Number	K/A Number	RO	SRO
Generic	2.3.1	2.6	3.0

INITIATING CUE

A report was received in the Main Control Room that there is a puddle of oil on the floor in the RWCU Pump "A"and this pump is running. Demonstrate the necessary actions to enter the pump room to locate the source of oil leakage.

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CLINTON POWER STATION

Job Performance Measure

JPM Number: RO A.4.2

Revision Number: 00

Date:4/5/02

Developed By:	**Mark Otten**	**4/5/02**
	Instructor	**Date**
Validated By:	**T Pickley**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/22/02**
	Training Department	**Date**

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JPM NUMBER: RO A.4.2 **REVISION: 00**

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

JPM NUMBER: RO A.4.2 **REVISION: 00**

Operator's Name:_____

Job Title: ❑ RO ❑ SRO

JPM Title: Perform a Plant Assembly Announcement
JPM Number: RO A.4.2
Revision Number: 00
Task Number and Title: 011285C501 Operate the Gaitronics System

K/A Number 2.4.43 Importance 2.8/3.5

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References:

EP-AA-113, PERSONNEL PROTECTIVE ACTIONS
EP-AA-113, Attachment 4, ASSEMBLY AND ACCOUNTABILITY

JPM NUMBER: RO A.4.2 **REVISION: 00**

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: RO A.4.2 **REVISION: 00**

READ TO THE OPERATOR

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

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

SIMULATOR SET-UP CONDITIONS:

None

TASK STANDARDS:

The Announcement for Site Assembly has been made.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

EP-AA-113, PERSONNEL PROTECTIVE ACTIONS
EP-AA-113, Attachment 4, ASSEMBLY AND ACCOUNTABILITY

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

Once the examinee shows where the PA is and demonstrates how to us it, then take the examinee to an area away from the other examinees to state what he would announce.

INITIAL CONDITIONS AND INITIATING CUE:

1. A Site Emergency has just been declared.
2. You are the 'B' Reactor Operator.
3. The Control Room Supervisor has directed you to make the Plant Assembly announcement per EP-AA-113, PERSONNEL PROTECTIVE ACTIONS step 4.1.4.4.

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

EP-AA-113, PERSONNEL PROTECTIVE ACTIONS step 4.1.4.4

EP-AA-113, Attachment 4, ASSEMBLY AND ACCOUNTABILITY

***Step 1.1.3** **Announce over the PA system**

Standard — Examinee presses the ALL PAGE pushbutton and holds the pushbutton while performing the announcement

Comments — Once the examinee shows where the PA is and demonstrates who to us it, then take the examinee to an area away from the other examinees to state what he would announce.

SAT UNSAT Comment Number

Note	Words in the announcement do not need to be exact.

***Step 2** **"Attention, Attention, plant assembly has been ordered. All persons are to report to your assigned assembly area." (or equivalent words)**

Standard — Makes an announcement similar to the one above.

Cue — It is not necessary to Repeat the message several times.

SAT UNSAT Comment Number

TERMINATING CUES:

Demonstrate how to us the PA system and a Public Announcement.

STOP TIME: _____

INITIATING CUE

1. A Site Emergency has just been declared.
2. You are the 'B' Reactor Operator.
3. The Control Room Supervisor has directed you to make the Plant Assembly announcement per EP-AA-113, PERSONNEL PROTECTIVE ACTIONS step 4.1.4.4.

Facility: Clinton Power Station Date of Examination: 7/29/2002

Examination Level (circle one): RO / **SRO** Operating Test Number: **ILT0101-1**

	Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations Notification Requirements	JPM – Perform ERO Activation. K/A 2.1.14 Imp 3.3
	Conduct of Operations Plant Parameter Verification	JPM - Review a Valve Lineup. (faulted) K/A 2.1.29 Imp 3.3
A.2	Equipment Control Tagging and Clearances	JPM - Review an Annunciator Log (faulted). K/A 2.2.11 Imp 3.4
A.3	Radiation Control Ability to Perform Procedures to Reduce Personnel Exposure	JPM - Redirect Workers in a High Radiation Area. K/A 2.3.10 Imp 3.3
A.4	Emergency Plan Emergency Protective Action Recommendations	JPM - Determine the PAR of evacuate 2 mile radius & 5 miles downwind K/A 2.4.44 Imp 4.0

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CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A1a 1

Revision Number: 00

Date: 5/5/2002

Developed By:	**B Price**	**5/5/02**
	Instructor	**Date**
Validated By:	**T. Pickley**	**5/9/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

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JPM NUMBER: SRO A1a 1 **REVISION:** 00

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 CPS JPM

CLINTON POWER STATION
SYSTEM JPM

JPM NUMBER: SRO A1a 1 **REVISION: 00**

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

JPM Title: Perform ERO activation
JPM Number: SRO A1a 1
Revision Number: 00
Task Number and Title: Knowledge of system status criteria which requires the notification of plant personnel.

K/A Number 2.1.14 Importance 2.5 / 3.3

Suggested Testing Environment: Simulator to make the PA announcement only

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References:

EP-AA-112-100, CONTROL ROOM ACTIVATION AND OPERATION
EP-AA-112, EMERGENCY RESPONSE ORGANIZATION (ERO) / EMERGENCY RESPONSE FACILITY (ERF) ACTIVATION AND OPERATION

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

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

Comments:_____
_____
_____
_____
_____
_____

Evaluator's Name: _____

Evaluator's Signature:_ Date: _

JPM NUMBER: SRO A1a 1 **REVISION: 00**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

Not Applicable

TASK STANDARDS:

Activate the ERO for an Alert Classification

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

EP-AA-112-100, CONTROL ROOM ACTIVATION AND OPERATION
EP-AA-112, EMERGENCY RESPONSE ORGANIZATION (ERO) / EMERGENCY RESPONSE FACILITY (ERF) ACTIVATION AND OPERATION

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.
Cue the candidate in an isolated area of the simulator. Let the student show where to locate the PA, demonstrates how to use it, then take the student to an isolated location to complete the task in a quiet voice.

INITIAL CONDITIONS AND INITIATING CUE:

You are the Shift Manager and have declared an Alert for a Fire. Make the announcement and activate the ERO if appropriate, per steps 1.2 and 1.3 in the attached copy of EP-AA-112-100, CONTROL ROOM ACTIVATION AND OPERATION.

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

EP-AA-112-100, CONTROL ROOM ACTIVATION AND OPERATION, Att. 1 SED Checklist

*1.2 **ANNOUNCE the following to the Control Room staff and over the plant PA system:** **TIME**_____
-Classification level;
-Reason for classification; and
-Activation of the TSC and OSC if appropriate.

Standard: Makes the announcement of the following to the Control Room staff and over the plant PA system:
Alert classification Level
For a fire in the Plant
Required to activate the TSC and OSC

CUE: As Shift Manager determines from the IMMEDIATE & SUBSEQUENT ACTIONS TABLE that ERO is required to be activated for an ALERT.

Announces and briefs the Control Room staff of:

- Alert classification Level
- For a fire in the Plant
- Required to activate the TSC and OSC

Makes an announcement over the plant PA system:

- Alert classification Level
- For a fire in the Plant
- Required to activate the TSC and OSC

Comments: Writing the time is not critical

Let the student show where to locate the PA, demonstrates how to us it.
The PA announcement can be demonstrated by simply stating what would be announce over the PA system

SAT UNSAT Comment Number

1.3	NOTIFY or ACTIVATE the ERO per Attachment 2, ERO Augmentation. TIME_____
Standard	Utilizes Attachment 2 to ACTIVATE the ERO
CUE	If a request for the ERO communicator(EROC), state the EROC is busy making offsite notifications.
Comments	The time is to document step completion
	SAT UNSAT Comment Number

***1.1.1.1**	**INITIATE ERO Notification or Activation by dialing 1-877-486-6612 to remotely access DCC COMMUNICATOR computer.**
Standard	**DIAL 9 to get an outside line then 1-877-486-6612** to remotely access DCC COMMUNICATOR computer
CUE	If 9 is dialed first then upon dialing the number 187 a busy tone will active. State the number is dialed and computer answers: "This is the remote activation module. Please enter your scenario activation password followed by the # sign."
Comments	1. Telling the examinee that he gets a busy tone if he fails to dial a 9 first will allow the student an opportunity to understand his actions. If the student gets onto one of the few phones that don't require dialing a 9 for an outside numbe then have him demonstrate that the phone has direct outside access. 2. Have dialing the number demonstrated on any available phone
	SAT UNSAT Comment Number

***1.1.1.2**	**Enters scenario number followed by # button**
Standard	Phone buttons 301# depressed
CUE	State 301# is dialed and computer answer: "To start a scenario, enter the scenario ID followed by the # sign *or press # alone for more options*."
Comments	Scenario 301# is the number for Clinton facility from the table in Att 2. 1. Have dialing the number demonstrated on any available phone 2. If # is pressed then restate the CUE. SAT UNSAT Comment Number

***1.1.1.3**	**ENTER the number previously entered in Step 2, followed by the # button.**
Standard	Phone buttons 301# depressed
CUE	State 301# is dialed and computer answer: "If you want to Start a Scenario Activation Press 3."
Comments	Have dialing the number demonstrated on any available phone SAT UNSAT Comment Number

***1.1.1.4**	**Starts a scenario activation.**
Standard	PRESS 3 activates scenario
CUE	State 3 is dialed and computer answer: 1. "The scenario is building." 2. A minute has passed, computer states: PRESS #, to exit.
Comments	Have dialing the number demonstrated on any available phone Pause for several moments before providing the second CUE SAT UNSAT Comment Number

***1.1.1.5**	**Exits automatic callout system**
Standard	PRESS #
CUE	State # is dialed and computer answer: "The scenario exited."
Comments	Have dialing the number demonstrated on any available phone State several minutes have passed before CUEING the next action

SAT UNSAT Comment Number

1.1.1.6	MCR receives a call from the DCC COMMUNICATOR System confirming scenario activation.
Standard	call is received in Control Room from the DCC COMMUNICATOR System confirming scenario activation.
CUE	State several minutes have passed, the MCR phone is ringing and upon answering the computer states: This is the DCC COMMUNICATOR System confirming scenario activation.
Comments	

SAT UNSAT Comment Number

STOP TIME: _____

TERMINATING CUES:

The Examinee determines the need to activate the ERO, performs a MCR announcement and activates the DCC COMMUNICATOR computer to activate ERO at Clinton

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Generic	2.1.14	2.5	3.3

JPM NUMBER: SRO A1a 1 **REVISION: 00**

INITIATING CUE

You are the Shift Manager and have declared an Alert for a Fire. Make the announcement and activate the ERO if appropriate, per steps 1.2 and 1.3 in the attached copy of EP-AA-112-100, CONTROL ROOM ACTIVATION AND OPERATION.

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CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.1.b.1

Revision Number: 00

Date: 04/17/2002

Developed By:	**Paul M. Higginbotham**	**4/17/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

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JPM NUMBER: SRO A.1.b.1 **REVISION:** 00

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

CLINTON POWER STATION
SYSTEM JPM

JPM NUMBER: **SRO A.1.b.1** **REVISION:** **00**

Operator's Name:_____
Job Title: ❑ SRO

JPM Title: Review A Valve Lineup (Faulted)
JPM Number: SRO A.1.b.1
Revision Number: 00
Task Number and Title:

K/A Number .2.1.29 Importance 3.3

Suggested Testing Environment: Any

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References: CPS 1052.01, CONDUCT OF SYSTEM LINEUPS, Revision 7b
CPS 3314.01V001, STANDBY LIQUID CONTROL VALVE LINEUP, Revision 10

JPM NUMBER: **SRO A.1.b.1** **REVISION:** **00**

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: SRO A.1.b.1 **REVISION: 00**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied. No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

N/A

TASK STANDARDS:

CPS 3314.01V001, STANDBY LIQUID CONTROL VALVE LINEUP, has been reviewed and the following discrepancies identified:

- Failure of the Performer to sign and inital the first page.
- Failure to terminate valve lineup and report 1C41-F031 found in wrong position
- Checker initials missing for 1C41-F323 (page 3)
- Initialed space for 1C41-F031 in wrong position (page 5)

Determine acceptance criteria are not met.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 1052.01, CONDUCT OF SYSTEM LINEUPS, Revision 7b
CPS 3314.01V001, STANDBY LIQUID CONTROL VALVE LINEUP, Revision 10

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

Conditions for a plant startup are being set. An NLO has just returned from completing a lineup. You are assigned to review the SLC Valve Lineup (CPS 3314.01V001) for acceptance.

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

1.	Examinee assigned to review a completed SLC Valve Lineup.
Standard	Examinee begins review of SLC Valve Lineup.
CUE	Give examinee the marked-up copy of CPS 3314.01V001 (attached)
Comments	

SAT UNSAT Comment Number

***2.**	**Identify discrepancies in performance of CPS 3314.01V001:** **1. Failure of the Performer to sign and initial the first page.** **2. Checker initials missing for 1C41-F323 (page 3)** **3. Note 1 instead of an initial for 1C41-F031 in wrong position(page 5)**
Standard	Examinee identifies discrepancies in performance of CPS 3314.01V001: 1. Failure of the Performer to sign and initial the lineup checklist. 2. Checker initials missing for 1C41-F323 3. Note in space for 1C41-F031 in wrong position.
CUE	When the student point out problems ask what they would do about them to be able to : 1. Respond as D. Suzuki by signing and initialing 2. Respond by saying time has gone by and state valve position is verified and initial in the open space with a MS 3. If asked why 1C41-F031 is open, state that the valve had been worked on during the outage and was left open, the work is done. Respond by saying time has gone by and line out, initial and date the note 1 and state valve 1C41-F031 is shut and initial for DS/MS
Comments	Indentifies the following problems: 1. Directs Don Suzuki to sign and initial 2. Direct step to be performed 3. Directs valve to be shut and verified

SAT UNSAT Comment Number

---

*3.	**All components on a lineup shall be positioned and checked, marked "NA", or annotated appropriately per step 8.3.1.3 of CPS 1052.01, CONDUCT OF SYSTEM LINEUPS.**
Standard	Examinee determines that the Acceptance Criteria are met per CPS 1052.01 and signs review of completed lineup
CUE	Provide CPS 1052.01 when requested
Comments	CPS 1052.01 is a routine use procedure, and is not required to be referenced
	SAT UNSAT Comment Number

TERMINATING CUES:

The discrepancies in the SLC Valve Lineup have been identified for failure to meet Acceptance Criteria as per CPS 1052.01. The problems are redirected to be completed, reviewed and signed for completion

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
GENERIC	2.1.29	3.4	3.3

JPM NUMBER: SRO A.1.b.1 **REVISION: 00**

INITIATING CUE

Conditions for a plant startup are being set. An NLO has just returned from completing a lineup. You are assigned to review the SLC Valve Lineup (CPS 3314.01V001) for acceptance.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.2.1

Revision Number: 00

Date: 4/12/2002

Developed By:	**D Antonelli**	**4/12/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/7/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

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

JPM NUMBER: SRO A.2.1 **REVISION: 00**

Operator's Name:_____
Job Title: ❑ SRO

JPM Title: Review Annunciator Log 1406.01 F001
JPM Number: SRO A.2.a 1
Revision Number:00
Task Number and Title: Knowledge of the process for controlling temporary changes.

K/A Number 2.2.11 Importance 2.5 / 3.4

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References:
CPS No. 1406.01 ANNUNCIATOR TRACKING PROGRAM
CPS No. 1406.01 F001 ANNUNCIATOR LOG
CPS No. 1406.01 F002 ANNUCIATOR REVIEW REQUEST

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: SRO A.2.1 **REVISION: 00**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

- Insert override to lock-in alarm 5043-1A High Temp Cntmt Bldg CCP Supply Air

- Install OOS Blue Post-It™ style (or equivalent) Tape Flags on the following annunciator windows:
  5042-3C Low Flow MU Fan A VD System **(VERIFY ALARM IS OFF)**
  5042-8B Trouble WO System **(VERIFY ALARM IS OFF)**
  5043-1A High Temp Cntmt Bldg CCP Supply Air **(VERIFY ALARM IS ON)**

TASK STANDARDS:

Identifies that annunciator 5042-8B Trouble WO System is improperly labeled with a BLUE OOS tag rather than a Disabled Annunciator – Partial (DAP) ORANGE FLAG.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

CPS No. 1406.01 ANNUNCIATOR LOG (attached)
CPS No. 1406.01 F002 ANNUCIATOR REVIEW REQUEST (attached)

PROCEDURAL/REFERENCES:

CPS No. 1406.01 ANNUNCIATOR TRACKING PROGRAM
CPS No. 1406.01 ANNUNCIATOR LOG
CPS No. 1406.01 F002 ANNUCIATOR REVIEW REQUEST
Three Blue Post-It™ style (or equivalent) Tape Flags.

EVALUATOR INSTRUCTIONS:

Provide examinee with attached CPS No. 1406.01 F001 and F002 as directed.
Amplifying cues are provided within the JPM steps.

JPM NUMBER: SRO A.2.1 **REVISION: 00**

INITIAL CONDITIONS AND INITIATING CUE:

As an SRO you are requested to perform a review of the CPS No. 1406.01 ANNUNCIATOR LOG for Panel 1 H13-P801 in support of a condition report action. The request for the review is documented and approved on a CPS No. 1406.01 F002 ANNUCIATOR REVIEW REQUEST.

Provide the examinee with the following attached forms:

CPS No. 1406.01 ANNUNCIATOR LOG

CPS No. 1406.01 F002 ANNUCIATOR REVIEW REQUEST

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

2.2 ANNUNCIATOR TRACKING PROGRAM, 1406.01

2.2.1 OUT OF SERVICE ANNUNCIATOR (OOS) BLUE FLAG

An annuciator that is not functioning properly due to:

a) Alarms without a valid condition,

b) Fails to alarm with a valid condition present, or

c) Alarm condition due to an out of cal instrument.

5042-3C Low Flow MU Fan A VD System

Standard: Examinee recognizes that the alarm "Fails to alarm with a valid condition present and is properly identified and labeled. There is no modifications in place at this time.

CUE: Respond as C Area that you are aware of this requirement and it is noted in the area log and passed on at turnover.

Respond that AR003434 is open awaiting Engineering action.

Comments: Student may perform additional verification of the information, so cues are provided. This is beyond the standard.

SAT UNSAT Comment Number

***2.2.2 DISABLED ANNUNCIATOR – PARTIAL (DAP) ORANGE FLAG**

An annunciator that has been partially disabled from the input circuit (DAP), or has had it's annunciator circuit modified from its original design. Individual annunciator input shall be disabled via a Temp Mod or other approved mechanism. Other inputs to the annunciator may still function to cause the alarm.

5042-8B Trouble WO System

Standard

Examinee recognizes that the alarm is improperly classified as OOS. It should be DAP. One of several inputs is disabled using a Temp Mod.

- Log should be DAP instead of OOS
- Tag should be Orange for DAP, instead of OOS

CUE

- Respond as C Area that you are aware of this requirement and it is noted in the area log and passed on at turnover.
- Respond that Temp Mod # 02-3333 is still in place, if asked.
- Respond that AR004445 is opened to repair the temperature switch, if asked.

Comments

Student may perform additional verification of the information, so cues are provided. This is beyond the standard.

The condition does not meet the definition of 2.2.1 because it is modified to allow detection of other inputs to the alarm.

SAT UNSAT Comment Number

2.2.1 OUT OF SERVICE ANNUNCIATOR (OOS) BLUE FLAG

An annuciator that is not functioning properly due to:

d) Alarms without a valid condition,

e) Fails to alarm with a valid condition present, or

f) Alarm condition due to an out of cal instrument.

5043-1A High Temp Cntmt Bldg CCP Supply Air

Standard

Examinee recognizes that the alarm is failed in an alarm condition and is properly identified and labeled. There is no modifications in place at this time.

CUE

Respond as C Area that you are aware of this requirement and it is noted in the area log and passed on at turnover.

Respond that AR006767 is open awaiting I and C action to correct calibration problem.

Comments

- Student may perform additional verification of the information, so cues are provided. This is beyond the standard.
- Examinee may direct that this alarm gets disabled, but is not a part of this JPM

SAT UNSAT Comment Number

JPM NUMBER: SRO A.2.1 **REVISION: 00**

TERMINATING CUES:

Examinee reports/documents that verification of proper LABELING of Annunciator windows and TYPE (i.e. OOS/DAP/DAF) is completed. A discrepancy with an improper label type that is required to be corrected.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Generic	2.2.11	2.5	3.4

JPM NUMBER: SRO A.2.1 **REVISION: 00**

INITIATING CUE

As an SRO you are requested to perform a review of the CPS No. 1406.01 ANNUNCIATOR LOG for Panel 1 H13-P801 in support of a condition report action. The request for the review is documented and approved on CPS No. 1406.01 F002 ANNUCIATOR REVIEW REQUEST.

These documents are provided.

JPM NUMBER: SRO A.2.1 **REVISION: 00**

ANNUNCIATOR REVIEW REQUEST

Originator: **John Doe** Phone: **X549** Date: **June 20, 2002**

Complete items 1 - 4 below, and route to the
Operations Support Manager (or designee) or Shift Manager (SM).

An review of the following annunciator panels is requested:

1. Panels: **1H13-P801**

2. Reason for request: **Corrective action for Condition Report 02-05-003**

3. Type of review requested:

   ___ a. Reconcile the disabled and out of service annunciators in the Annunciator Log to the FLAGs on the windows and the cards pulled in the annunciator cabinet.

   ___ b. Give a description of the reason behind each locked in annunciator in the panels designated. This description should be returned to the Operations Support Manager (or designee).

   X c. Other: **Verify proper LABELING of Annunciator windows, TYPE (i.e. OOS/DAP/DAF), compensating actions are still in place and all required information is logged.**

4. Request completion by: 7/30/02 Date

5. Review approval by the
   Operations Support Manager (or designee) or SM. **DD** Initial

---

6. Review completed (use CPS No. 1406.01F003, ANNUNCIATOR REVIEW LOG) and discrepancies corrected on the Annunciator Log.

   Reason for each alarming annunciator
   for Type 3.b review attached.

   ___ SM/CRS

ANNUNCIATOR LOG

1H13-P800 (Annunciator Panel)

5042-3C Low Flow MU Fan A VD System **OOS** **5/10/02** **HS**
Window Noun Name of Window Type Date/Time SM/CRS

Problem: **Flow switch 1PDS- VD033 fails to actuate on decreasing air flow. When the fan is off the alarm does not actuate. NSED is developing a design change to correct the reoccurring problem.**

Compensatory Actions: **C-Area Operator is to monitor Supply Filter dP locally at 1PL55J on 1PDI-VD050 twice daily.**

Responsibility: **NSED AR003434** Restoration Approval (SM/CRS/Date): ____/____

5042-8B Trouble WO System **OOS** **5/12/02** **AH**
Window Noun Name of Window Type Date/Time SM/CRS

Problem: **High Chiller Temp input causes alarm to spuriously actuate continuously masking other inputs.**

Compensatory Actions: **High Chiller Temp input is disabled using Temp Mod # 02-3333 allowing detection of other inputs. Area operator is to monitor Chiller Temperature at Panel OPL67JB.**

Responsibility: **AR004445** Restoration Approval (SM/CRS/Date): ____/____

5043-1A High Temp Cntmt Bldg CCP Supply Air **OOS** **6/15/02** **JD**
Window Noun Name of Window Type Date/Time SM/CRS

Problem: **Temperature switch 1TS-VR166 is out of calibration high causing a continuous alarm.**

Compensatory Actions: **C Area to monitor temperature twice daily at CCP Local Panel 1PL17J using temperature instrument 1TI-VR166.**

Responsibility: **IC Shop AR006767** Restoration Approval (SM/CRS/Date): ____/____

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.3.1

Revision Number: 00

Date: 4/1/02

Developed By:	**Mark Otten**	**4/1/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.3.1 **REVISION: 00**

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

JPM NUMBER: SRO A.3.1 **REVISION: 00**

Operator's Name:_____
Job Title: ❑ SRO

JPM Title:Redirect Worker in a High Radiation Area
JPM Number:SRO A.3.1
Revision Number:00
Task Number and Title: Ability to perform procedures to reduce excessive levels of radiation and guard against personnel exposure

K/A Number 2.3.10 Importance 3.3

Suggested Testing Environment: Any, simulator is prefered

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References:

RP-AA 460, CONTROLS FOR HIGH AND VERY HIGH RADIATION AREAS

RP-AA-400, ALARA PROGRAM

JPM NUMBER: SRO A.3.1 **REVISION: 00**

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: _____

_____

_____

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_____

Evaluator's Name: _____

Evaluator's Signature: _ Date: _

JPM NUMBER: SRO A.3.1 **REVISION: 00**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS: None

TASK STANDARDS:
The NLO is waiting in a low dose area

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:
None
PROCEDURAL/REFERENCES:

RP-AA 460, CONTROLS FOR HIGH AND VERY HIGH RADIATION AREAS
RP-AA-400, ALARA PROGRAM

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

1. The Unit is at 50% power, you are the CRS.
2. An NLO is in the Aux Bldg Steam Tunnel to perform valve manipulations for feedwater flow trouble shooting.
3. The NLO was just directed by the Control Room to CLOSE 1FW042A "Rx Feedwater Flow Inst Root"
4. Shift turnover will be conducted in 15 minutes.
5. You are the CRS.

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

RP-AA 460, CONTROLS FOR HIGH AND VERY HIGH RADIATION AREAS
4.1.2.4.2. Only RP personnel are authorized to alter the position of radiological boundaries or barricades associated with an HRA/LHRA/VHRA.

***Step 1**	**RP barricade blocks access to valve.**
Standard	Does not allow the NLO to move the barricade.
CUE	As the NLO report that a RP barricade stanchion is blocking access to the valve and requests permission from the CRS to move the barricade.
Comments	

SAT UNSAT Comment Number

Note	May direct the performance of step 3 before step 2.
Step 2	Directs RP to move barricade.
Standard	Contacts RP or directs NLO to contact RP to have barricade moved.
CUE	As RP report that the barricade will not be able to be moved until after shift turnover in 30 minutes.
Comments	

SAT UNSAT Comment Number

JPM NUMBER: SRO A.3.1 **REVISION: 00**

RP-AA-400, ALARA PROGRAM
3.10.1. ENSURE that department personnel comply with ALARA Program procedures and requirements.

***Step 3**	**Directs NLO to low dose area.**
Standard	Has NLO go to low dose area and/or exit Locked High Radiation Area
CUE	Respond to direction accordingly: stating in the low dose area and/or exit Locked High Radiation Area

Comments

SAT UNSAT Comment Number

TERMINATING CUES:

The NLO is waiting in a low dose area, this JPM is complete.

STOP TIME: _____

JPM NUMBER: SRO A.3.1 **REVISION: 00**

INITIATING CUE

1. The Unit is at 50% power.
2. An NLO is in the Aux Bldg Steam Tunnel to perform valve manipulations for feedwater flow trouble shooting.
3. The NLO was just directed by the Control Room to CLOSE 1FW042A "Rx Feedwater Flow Inst Root"
4. Shift turnover will be conducted in 15 minutes.
5. You are the CRS.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.4.1

Revision Number: 00

Date:4/2/02

Developed By:	**Mark Otten**	**4/2/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.4.1 **REVISION: 00**

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

JPM NUMBER: SRO A.4.1 **REVISION: 00**

Operator's Name:_____
Job Title: ❑ SRO

JPM Title:Determine a PAR
JPM Number:SRO A.4.1
Revision Number:00
Task Number and Title: Knowledge of emergency plan protective action recommendations

K/A Number 2.4.44 Importance 4.0

Suggested Testing Environment: Simulator or Control room where references are immediately available

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ■ Yes ❑ No

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

References:

EP-AA-111, EMERGENCY CLASSIFICATION AND PROTECTIVE ACTION RECOMMENDATIONS

Clinton Annex

JPM NUMBER: SRO A.4.1 **REVISION: 00**

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: SRO A.4.1 **REVISION: 00**

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.

SIMULATOR SET-UP CONDITIONS:

None

TASK STANDARDS:

Determine the action is to Evacuate 2 Mile Radius & 5 Miles Downwind.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:
None
PROCEDURAL/REFERENCES:

EP-AA-111, EMERGENCY CLASSIFICATION AND PROTECTIVE ACTION RECOMMENDATIONS

Radiological Emergency Plan Annex for Clinton Station

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

1. A General Emergency has just been declared per EP-AA-111, EMERGENCY CLASSIFICATION AND PROTECTIVE ACTION RECOMMENDATIONS using the Radiological Emergency Plan Annex for Clinton Station

2. Reactor Water level is –177 inches.

3. Radiation levels in the containment are 6371 R/hr.

4. Hydrogen concentration in the containment is 6.1%

5. The wind direction is 159°

6. You are to determine the PARs.

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

Step 1	Refer to Fission Product Barrier Matrix
Standard	Examinee refers to Fission Product Barrier Matrix
Comments	

SAT UNSAT Comment Number

Step 2	Determine that a Loss of RCS Barrier has occurred. Determine that a Loss of Fuel Clad Barrier has occurred. Determine that a Potential Loss of Containment Barrier has occurred.
Standard	Examinee determines: Loss of RCS Barrier, Loss of Fuel Clad Barrier, and Potential Loss of Containment Barrier has occurred.
Comments	

SAT UNSAT Comment Number

JPM NUMBER: SRO A.4.1 **REVISION: 00**

EP-AA-111, EMERGENCY CLASSIFICATION AND PROTECTIVE ACTION RECOMMENDATIONS

2.8.2.1. The PAR must be provided to the State, and designated local agencies as applicable, within 15 minutes of (1) the classification of the General Emergency

***Step 3**	**Determine the action is to Evacuate 2 Mile Radius & 5 Miles Downwind**
Standard	Examinee determines the action is to evacuate a 2 mile radius and 5 miles downwind.
Comments	

SAT UNSAT Comment Number

TERMINATING CUES:

PAR is determined

STOP TIME: _____

Verify elapsed time meets the time critical requirement

JPM NUMBER: SRO A.4.1 **REVISION: 00**

INITIATING CUE

1. A General Emergency has just been declared per EP-AA-111, EMERGENCY CLASSIFICATION AND PROTECTIVE ACTION RECOMMENDATIONS using the Radiological Emergency Plan Annex for Clinton Station
2. Reactor Water level is –177 inches.
3. Radiation levels in the containment are 6371 R/hr.
4. Hydrogen concentration in the containment is 6.1%
5. The wind direction is 159°
6. You are to determine the PARs.

Facility: Clinton Power Station Date of Examination: 7/29/2002

Examination Level (circle one): RO / **SRO** Operating Test Number: **ILT0101-2**

	Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations Fuel Handling	JPM – Review and determine if fuel moves can continue K/A 2.1.7 Imp 4.4
	Conduct of Operations Plant Parameter Verification	JPM – Determine if Power, Flow or Core Thermal limits have been exceeded (faulted) K/A 2.1.19 Imp 3.0
A.2	Equipment Control Surveillance Testing	JPM – Review surveillance and recognize entry condition to Reactor Coolant leakage off-Normal(Faulted) K/A 2.2.12 Imp 3.4
A.3	Radiation Control Exposure Limits	JPM – Request Radiation Exposure Extension K/A 2.3.10 Imp 3.0
A.4	Emergency Plan Lines of Authority During an Emergency	JPM – Transfer Command and Control to the TSC K/A 2.4.38 Imp 4.0

C+2

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO-A.1.a.2

Revision Number: 00

Date: 04/16/2002

Developed By:	**C. Ware**	**4/16/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

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

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

_____ _____
SME / Instructor – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

JPM NUMBER: SRO-A.1.a.2 **REVISION:** 00

Revision Record (Summary)

Revision	Date	Description
00	04/16/2002	This is a new SRO Administrative JPM.

CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: SRO-A.1.a.2 **REVISION: 00**

Operator's Name: _____

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

JPM Title: Determine if Fuel Movement Can Continue (One SRM Reading < 3 cps) – Faulted
JPM Number: ILT0101-SRO-A.1.a.2
Revision Number: 00
Task Number and Title: 031345C209 / Monitor Refueling Floor Activities from the Main Control Room during Core Alterations

K/A Number Generic 2.1.7 Importance 4.4

Suggested Testing Environment: Any Location Where References are Available

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 3703.01, Core Alterations
CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet
CPS 9000.03, Core Alteration Surveillance Log
CPS Technical Specifications

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: SRO-A.1.a.2 **REVISION:** 00

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied. No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

(Not applicable if the JPM Testing Environment is the Classroom)
Or if the simulator can establish conditions:
Place simulator in a Refuel IC. Verify that the Mode Switch is locked in Refuel with key removed. Verify that all control rods are fully inserted. I/O so SDC apears Linedup return to the fuel pool. Withdraw SRM 'D' untill it reads less than 3 counts, override the retract not permitted alarm, stick the D SRM and I/O the SRM "in" light on when the retract power pushputton is depressed. Replicate communication setup between the Control Room and refuel platform.

TASK STANDARDS:

- Determines that an immediate suspension of core alterations is required.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet (prefilled out with data supporting SRM 'D' downscale, only need Step 8.4.1 page)
CPS 9000.03, Core Alteration Surveillance Log (prefilled out with data supporting SRM 'D' downscale)

PROCEDURAL/REFERENCES:

CPS 3703.01, Core Alterations
CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet
CPS 9000.03, Core Alteration Surveillance Log
CPS Technical Specifications

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

The reactor plant is in Mode 5. Core alterations are in progress in the North East Quadrant. Thirty-five bundles are installed in the quadrant. The Reactor Operator has just completed CPS 9000.03, Core Alteration Surveillance Log CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet and handed them to you for review. Report when your review is complete.

START TIME: _____

JPM NUMBER: SRO-A.1.a.2 **REVISION: 00**

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

9000.03, Core Alteration Surveillance Log and CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet

1 8.3 Conducts Shift Management review.

Standard: Determines that SRM 'D' is downscale (less than 3 cps). Determines that SRM 'D' is located in the quadrant where core alterations are occurring. Determines that adjacent quadrants have operable SRMs.

Cue: If asks for CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet, hand examinee the CPS 9000.01D002 Step 8.4.1 page.

Comments: No other pages from CPS 9000.01D002 are needed for this JPM.

SAT UNSAT Comment Number

NOTE

Failure to meet the Acceptance Criteria shall constitute a failure to comply with the applicable LCO. ITS should be immediately reviewed to identify Action Statements needed for implementation. Refer to Supplemental Review Sheet for applicable LCOs.

*2 9.1 **9.1.1 Items in section 8.0 of CPS 9000.03 are satisfactory.**

Standard: Determines that core alterations must be immediately suspended. Notifies Refuel SRO that core alterations must be immediately suspended.

Cue: Acknowledge notification that core alterations must be suspended.

Comments: Examinee may determine core alteration suspension from any of the following:

- CPS Technical Specifications by entering LCO 3.3.1.2, SRM Instrumentation.
- CPS 3703.01, Core Alterations from Limitation 6.10

SAT UNSAT Comment Number

JPM NUMBER: SRO-A.1.a.2 **REVISION:** 00

TERMINATING CUES:

Shift Management/Refuel SRO/Reactor Engineering notified that core alterations must be immediately suspended.

STOP TIME: _____

K/A REFERENCE NUMBERS			
K/A System Number	K/A Number	Importance Rating	
		RO	SRO
Generic	2.1.7	3.7	4.4
	2.1.33	3.4	4.0

JPM NUMBER: SRO-A.1.a.2 **REVISION: 00**

INITIATING CUE

The reactor plant is in Mode 5. Core alterations are in progress in the North East Quadrant. Thirty-five bundles are installed in the quadrant. The Reactor Operator has just completed CPS 9000.03, Core Alteration Surveillance Log CPS 9000.01D002, Control Room Surveillance Log - Mode 4, 5 Data Sheet and handed them to you for review. Report when your review is complete.

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5 DATA SHEET

SCOPE OF REVISION:

- Periodic review and format update per CPS 1005.00/01/02 criteria. Major layout updates to match improvements in D001.
- 8.4.1: Benchmarked BWROG SRM Channel Check Comparison Guideline added per RF6 Restart OPs Self Assessment (CCF 00-0081: Westbrook).
- 8.4.7.b: Use of CM indication updated to match approved PDR 99-1254 on D001 .
- 8.12: Changed order of occurrence of AR/PR monitors to match AR/PR LAN printout for ease of use by operators. Matches D001 layout.
- 8.12: Removed Rad Monitor 0RIX-PR040 CK, covered in 9911.50 (CCF 99-1974).
- 8.12.12: Allows use of the Meteorological Data Recorders as alternative instruments to satisfy ORM 4.2.8.1 channel check requirements (matches PDR 99-1151 to D001).

❶ Specific Rev. 35a [Landin]: Editorial - Page 9 Heading off-center, corrected. 8.12 area size increased per OPs request to match D001 layout.

❷ Specific Rev. 35b [Landin] - EDITORIAL
° CR 79830-07 - 8.12.34-37: added check of supporting Ch 14 not deleted.

CONTINUOUS USE

ORIGINATOR: *Thomas J. Landin* **CLASS CODE:** *SNND1*

ITR: *B. Brehm* **APPROVAL DATE:** *MAR 09 2000*

CURRENT CHANGES TO GENERAL REVISION

	Change #	Date	List of Affected Pages
❶	35a	05/07/01	1, 9, 10, 11, 12, 13
❷	35b	01/10/02	1, 12
❸			
❹			
❺			

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5

MON	~~TUE~~	WED	THU	FRI	SAT	SUN
	Today					

8.4 INSTRUMENTATION

8.4.1 Source Range Monitors (SRM)

SRM Comparison Guideline:

3 to 500 cps when all rods are inserted.

If a channel is > 500 cps, refer to CPS 1401.09 to evaluate channel operability.

1. MODE 4 [DAYs only]

a) Record/Verify ≥ 3.0 cps.
Use DCS Display.
Verify SRMs full in.
(≥ 2 channels)
(ITS SR 3.3.1.2.4 T1)

SRM Channel							
A	NA cps	____cps	____cps	____cps	____cps	____cps	____cps
B	____cps	____cps	____cps	____cps	____cps	____cps	____cps
C	____cps	____cps	____cps	____cps	____cps	____cps	____cps
D	____cps	____cps	____cps	____cps	____cps	____cps	____cps

b) (Initial) Channel Check SRM indications.
• 1H13-P678 • DCS (flux & period)
(ITS SR 3.3.1.2.3 T1)

X/NAX	X/ /X	X/ /X	X/ /X	X/ /X	X/ /X	X/ /X

2. MODE 5 [Shiftly]

a) Record/Verify ≥ 3.0 cps.
Use DCS Display.
Verify SRMs full in.
(≥ 2 channels)
(ITS SR 3.3.1.2.4 T1)

SRM Channel							
Mids A	38 cps	21 cps	____cps	____cps	____cps	____cps	____cps
Mids B	22 cps	9 cps	____cps	____cps	____cps	____cps	____cps
Mids C	44 cps	16 cps	____cps	____cps	____cps	____cps	____cps
Mids D	27 cps	2 cps	____cps	____cps	____cps	____cps	____cps

b) Record/Verify ≥ 3.0 cps.
Use DCS Display.
Verify SRMs full in.
(≥ 2 channels)
(ITS SR 3.3.1.2.4 T1)

SRM Channel							
Days A	29 cps	____cps	____cps	____cps	____cps	____cps	____cps
Days B	Fi cps	____cps	____cps	____cps	____cps	____cps	____cps
Days C	38 cps	____cps	____cps	____cps	____cps	____cps	____cps
Days D	20 cps	____cps	____cps	____cps	____cps	____cps	____cps

c) Record/Verify ≥ 3.0 cps.
Use DCS Display.
Verify SRMs full in.
(≥ 2 channels)
(ITS SR 3.3.1.2.4 T1)

SRM Channel							
Swings A	24 cps	____cps	____cps	____cps	____cps	____cps	____cps
Swings B	21 cps	____cps	____cps	____cps	____cps	____cps	____cps
Swings C	19 cps	____cps	____cps	____cps	____cps	____cps	____cps
Swings D	6 cps	____cps	____cps	____cps	____cps	____cps	____cps

d) (Initial) Channel Check SRM indications.
• 1H13-P678 • DCS (flux & period)
(ITS SR 3.3.1.2.1 T1)

NA NA /	/ /	/ /	/ /	/ /	/ /	/ /

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5

MON	~~TUE~~	WED	THU	FRI	SAT	SUN
	Today					

8.4 INSTRUMENTATION (cont'd)

8.4.6 Scram Discharge Volume (SDV) Level
(MODE 5 with any control rod withdrawn from a core cell containing one or more fuel assemblies.)

(Initial) Channel Check SDV Level indications.							
NA/NA/NA	NA /	/ /	/ /	/ /	/ /	/ /	/ /

RPS ATM 1C11-N601A, B, C, D
(ITS SR 3.3.1.1.1 T8.a)

8.4.7 Suppression Pool Level

1. (Initial) Channel Check Suppression Pool Level indications.							
NA	/ /	/ /	/ /	/ /	/ /	/ /	/ /

a) ATM 1E22-N655C, G (inst. zero = 731' 5")

b) 1LR-CM240, -CM241 or 1LY-CM030, -CM031,
1LY-SM006 (1H13-P852), 1LY-SM013 (1H13-P862)

Instrument zero is 727'0".
1LR-CM240 & CM241 read in feet and inches.
1LY-SM006, 1LY-SM013 read 0 - 100%,
with full scale equal to +70".
Use following when conducting channel check.
(Also applicable to 1LY-CM030 & CM031.)

0% = 15'0"	67% = 18'11"	100% = 20'10"
25% = 16'5.5"	71% = 19'2"	
50% = 17'11"	76% = 19'5"	

2. (Record) Record/Verify Suppression Pool Water Level is ≥ 12'9" from recorder 1LR-CM030 and 1LR-CM031 on 1H13-P601. (ITS SR 3.5.2.1, 3.5.2.2.a)							
CM030	✓/X/X ft-in	✓/X/X ft-in	___/X/X ft-in	___/X/X ft-in	___/X/X ft-in	___/X/X ft-in	___/X/X ft-in
CM031	✓/X/X ft-in	✓/X/X ft-in	___/X/X ft-in	___/X/X ft-in	___/X/X ft-in	___/X/X ft-in	___/X/X ft-in

If either recorder is inoperable or below range (16'),
then refer to recorders 1LR-SM014 and 1LR-SM016 on 1H13-P601.

If recorder sets 1LR-CM030 and 1LR-CM031, or 1LR-SM014 and 1LR-SM016 are not operable, then locally verify Suppression Pool water level is above the top of the upper row of drywell vents (≥ 13'1").

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5

MON	~~TUE~~ Today	WED	THU	FRI	SAT	SUN

8.4 INSTRUMENTATION (cont'd)

8.4.13 HPCS Pump Discharge Pressure

(Initial) Channel Check HPCS Pump Discharge Pressure indications.

HPCS ATM 1E22-N651 (ITS SR 3.3.5.1.1 T3.f)

W/W/F	W / /	/ /	/ /	/ /	/ /	/ /

8.4.14 HPCS Pump Minimum Flow

(Initial) Channel Check HPCS Pump Minimum Flow indications.

HPCS ATM 1E22-N656 (ITS SR 3.3.5.1.1 T3.g)

W/W/F	W / /	/ /	/ /	/ /	/ /	/ /

8.5 RESIDUAL HEAT REMOVAL

(Initial) Verify proper operation of the RHR Shutdown Cooling MODE per applicable MODE:

1. (MODE 4)

   Verify one RHR shutdown cooling subsystem or recirculation pump is operating. (ITS SR 3.4.10.1)

2. (MODE 5 with irradiated fuel in the RPV and water level ≥ 23 ft above the top of the RPV flange)

   Verify one RHR shutdown cooling subsystem is operating. (ITS SR 3.9.8.1)

3. (MODE 5 with irradiated fuel in the RPV and water level < 23 ft above the top of the RPV flange)

   Verify one RHR shutdown cooling subsystem is operating. (ITS SR 3.9.9.1)

✓ W/F	W / /	/ /	/ /	/ /	/ /	/ /
W/W/F	W / /	/ /	/ /	/ /	/ /	/ /
W/W/F	W / /	/ /	/ /	/ /	/ /	/ /

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5

MON	~~TUE~~	WED	THU	FRI	SAT	SUN

8.9 NSS AND BOP ANNUNCIATOR HIDDEN GROUND FAULT TEST [Wednesday MIDs only] Today

NOTE

If an annunciator card(s) has a hidden ground fault in the system being tested, it will alarm.

			/X/X			

1. (Initial) Perform a NSS Hidden Ground Fault Test.

   In 1H13-P630, depress Ground Fault Test push-button and observe the Ground Fault lamp lights and verify annunciator "H13-P630 ANNUNCIATOR GRD FAULT" (5006-1L) alarms, then release push-button.

			/X/X			

2. (Initial) Perform a BOP Hidden Ground Fault Test.

   In 1H13-P6850, depress Ground Fault Test push-button and observe the Ground Fault lamp lights and verify annunciator "H13-P850 ANNUNCIATOR GRD FAULT" (5007-1D) alarms, then release push-button.

8.10 THERMAL OVERLOAD PROTECTION (MOV Test Switches)

(Initial) Once per eight hour period, verify thermal overload protection is bypassed for motor operated valves (MOV) required to be operable. Verify MOV Test Prep switches are in NORM position. (ORM TR 4.5.2.2) *«CM-1»*

MM/T	/ /	/ /	/ /	/ /	/ /	/ /

8.11 SVC PROTECTION SYSTEMS [DAYs only]

Verify required CPS 3800.02C003, E-Area Daily Rounds - SVC local panel checks are complete. (ITS SR 3.8.11.1)

1. (Initial) RAT SVC Protection System	X/M/X	X/	/X	X/	/X	X/	/X	X/	/X	X/	/X	X/	/X
2. (Initial) ERAT SVC Protection System	X/M/X	X/	/X	X/	/X	X/	/X	X/	/X	X/	/X	X/	/X

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5

01

8.12 AR/PR RADIATION MONITORS CHANNEL CHECKS (cont'd)

☞ Code Table for 8.12 items on Page 13.

			MON	TUE (Today)	WED	THU	FRI	SAT	SUN
13.	1RIX-PR004	[ODCM SR 2.7.1.1 T2.c (d)]	W/W/✓	~/ /	/ /	/ /	/ /	/ /	/ /
14.	1RIX-PR005	[ODCM SR 2.7.1.1 T2.c (d)]	NA/NA/NA	~/ /	/ /	/ /	/ /	/ /	/ /
15.	1RIX-PR036	[ODCM SR 2.7.1.1 T2.a (d)]	W/W/✓	~/ /	/ /	/ /	/ /	/ /	/ /
16.	1RIX-PR037	[ODCM SR 2.7.1.1 T2.a (d)]	W/W/✓	~/ /	/ /	/ /	/ /	/ /	/ /
17.	1RIX-PR038	[ODCM SR 2.7.1.1 T2.b (d)]	W/W/✓	~/ /	/ /	/ /	/ /	/ /	/ /
18.	1RIX-PR039	[ODCM SR 2.7.1.1 T2.b (d)]	W/W/✓	~/ /	/ /	/ /	/ /	/ /	/ /
19.	1RIX-PR023	1/3/5/6 [Sunday DAYs only]							X/ /X
20.	1RIX-PR026	1/3/5/6 [Sunday DAYs only]							X/ /X
21.	1RIX-PR028	1/3/5/6 [Sunday DAYs only]							X/ /X
22.	1RIX-PR030	1/3/5/6 [Sunday DAYs only]							X/ /X
23.	1RIX-AR001	[Sunday DAYs only]							X/ /X
24.	1RIX-AR003	[Sunday DAYs only]							X/ /X
25.	1RIX-AR002	[Sunday DAYs only]							X/ /X
26.	1RIX-AR017	[Sunday DAYs only]							X/ /X

CONTROL ROOM SURVEILLANCE LOG - MODE 4, 5

01

MON	~~TUE~~	WED	THU	FRI	SAT	SUN
	Today					

8.12 AR/PR RADIATION MONITORS CHANNEL CHECKS (cont'd)

† 0UIX-PR050 should be used as the primary means of satisfying ORM Channel Checks.

Recorders 1UR-EM015 (60 meter wind velocity and direction), 1UR-EM016 (10 meter wind velocity and direction), and 1UJR-EM014 Pt. 3 (Delta Temperature) may be used to satisfy the channel checks when 0UIX-PR050 is inoperable or not communicating (POLL OFF) with the AR/PR LAN.

If 0UIX-PR050 is inoperable or not communicating (POLL OFF) with the AR/PR LAN, contact the Buffer System Manager to notify IDNS that meteorological data will be unavailable.

If channel checks are performed with the recorders, a notation shall be made in the Comments section.

(a) At all times.
(b) When standby gas treatment system is in standby or operation.
(d) Any time system is in service.
(e) With fuel in the new fuel storage vault.
(f) With irradiated fuel in the spent fuel pool.
(g) During operations with a potential for draining the reactor vessel.
(h) During CORE ALTERATIONS, and during movement of irradiated fuel assemblies in the primary or secondary containment.
(i) During movement of irradiated fuel assemblies in the fuel building.

8.13 SELF TEST SYSTEM (ITS SR (see 2.1.7/8), ORM TR 4.2.14.1)

(Initial) Status indications of the STS shall be obtained at least once per 24 hours, whenever the STS is operating in the fully or partially automatic MODE.

W /X/X	✓ /X/X	/X/X	/X/X	/X/X	/X/X	/X/X

0 STS Summary print-out per CPS 3513.01 (STS).
NOTE anything other than fully automatic MODE for status keeping.

8.14 SURVEILLANCE COMPLETION

(Record) Record finish time of CPS 9000.01D002.

m 2355 d 0815 s 16:10	m 23:45 d ____ s ____	m ____ d ____ s ____	m ____ d ____ s ____	m ____ d ____ s ____	m ____ d ____ s ____	m ____ d ____ s ____

CONTROL ROOM OPERATOR SURVEILLANCE LOG - MODE 4, 5 DATA SHEET

SUPPLEMENTAL REVIEW SHEET

Corrective Action Taken

Operability Requirements:

ITS LCOs: see body of Data Sheet

ORM ORs: see body of Data Sheet

ODCM ORs: see body of Data Sheet

As applicable:

Initiated Condition Report No. _____

Initiated Work Document No. _____

Comments/Deficiencies

Review and Approval

Surveillance Coordinator: _____
(Signature) (Date)

Exelon SM
Nuclear

c+2

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.1.b.2

Revision Number: 02

Date: 04/15/2002

Developed By:	**C. Ware**	**4/17/02**
	Instructor	**Date**
Validated By:	**B Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/22/02**
	Training Department	**Date**

JPM NUMBER: 031345J001 **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 – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

_____ _____
SME / Instructor – Signature / Printed Date

JPM NUMBER: 031345J001 **REVISION:** 02

Revision Record (Summary)

Revision	Date	Description
00	Unknown	This is a new SRO Administrative JPM.
01	07/26/2001	JPM updated to new Exelon format.
02	04/15/2002	Updated JPM with EPU (power uprate) information

CLINTON POWER STATION
ADMIN JPM

JPM NUMBER: 031345J001 **REVISION:** 02

Operator's Name: _____

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

JPM Title: Determine if Power, Flow, or Core Thermal Limits Have Been Exceeded – Faulted
JPM Number: 031345J001
Revision Number: 02
Task Number and Title: 01345C518 / Evaluate Core Thermal Limits During Power Operations

K/A Number Generic 2.1.19 Importance 3.0

Suggested Testing Environment: Any Location Where References are Available

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 9820.01, Power Distribution Limits
CPS 9820.01D001, Power Distribution Limits Data Sheet
CPS Technical Specifications

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: 031345J001 **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. No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

Not Applicable

TASK STANDARDS:

- Perform CPS 9820.01, Power Distribution Limits with no deviation from the procedure.
- Identifies highest values of MFLCPR and MFLPD are > 1.0.
- Determines Tech Spec actions require restoration MFLCPR and MFLPD limits within 2 hours.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

CPS 9820.01D001, Power Distribution Limits Data Sheet

PROCEDURAL/REFERENCES:

CPS 9820.01, Power Distribution Limits
CPS 9820.01D001, Power Distribution Limits Data Sheet
CPS Technical Specifications

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

You are the Control Room Supervisor. The Shift Manager discovers that daily surveillance CPS 9820.01, Power Distribution Limits needs to be completed prior to exceeding its frequency. All of the Reactor Operators are busy with other plant activities. The Shift Manager directs you to perform the daily surveillance CPS 9820.01, Power Distribution Limits. Report when the task is complete.

START TIME: _____

JPM NUMBER: 031345J001 **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

9820.01 Power Distribution Limits

1 5.1 Notify Shift Management prior to performing procedure.

Standard: Notifies Shift Management prior to performing procedure. Enters start date, start time, and initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue: Acknowledge notification.

Comments: Being the CRS would initial for notification

SAT UNSAT Comment Number

2 5.2 Verify Core Thermal Power is ≥ 21.6% of RTP.

Standard: Verifies Core Thermal Power is ≥ 21.6% of RTP by checking the 3D Case. Initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments:

SAT UNSAT Comment Number

3 5.3 Check the applicable entry condition.

Standard: Determines that the applicable entry condition is Daily Surveillance. Checks the appropriate box on CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: The entry condition was given in the initiating cue.

SAT UNSAT Comment Number

---

4 5.4 Verify 3D Case ID has an 'M' in 2nd character.

Standard: Determines that second character of 3D CASE ID is an 'M'. Initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments:

SAT UNSAT Comment Number

---

5 5.5 Check applicable RR pump status.

Standard: Would check RR pump status on DCS. Checks the appropriate box on CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue: Inform operator that 2 RR pumps are running.

Comments:

SAT UNSAT Comment Number

---

6 5.6 Check applicable 3D Case OPTION line items:

ARTS, DUAL LOOP, MANUAL FLOW, SINGLE LOOP

Standard: Checks the 3D Case and determines that ARTS, DUAL LOOP, and MANUAL FLOW boxes should be checked. Checks ARTS, DUAL LOOP, and MANUAL FLOW boxes on CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: This information is located to the right of OPTION on the 3D Case.

SAT UNSAT Comment Number

---

7 8.2 From the 3D Case determine the highest MAPRAT value.

Initial CPS 9820.01D001 if MAPRAT ≤ 1.0.

Standard: Determines the highest MAPRAT value is 0.821. Initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments:

SAT UNSAT Comment Number

---

*8 8.3 **From the 3D Case determine the highest MFLCPR value.**

Initial CPS 9820.01D001 if MFLCPR ≤ 1.0.

Standard: Determines that the highest MFLCPR value is 1.003. Does NOT initial CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: Two locations have MFLCPR value > 1.0 (37-28 & 39-26)

May insert a note documenting what was observed

SAT UNSAT Comment Number

---

*9 8.4 **From the 3D Case determine the highest MFLPD value.**

Initial CPS 9820.01D001 if MFLPD ≤ 1.0.

Standard: Determines that the highest value of MFLPD is 1.002. Does NOT initial CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments: One location has MFLPD value > 1.0 (17-22-18)

May insert a note documenting what was observed

SAT UNSAT Comment Number

---

*10 8.5 **Immediately contact Shift Management if any of the following conditions occur so that corrective action may be taken in accordance with the appropriate ITS:**

- MAPRAT is > 1.0.
- **MLCPR is > 1.0.**
- **MFLPD is > 1.0.**

Standard: Notifies Shift Management that MFLCPR and MFLPD are out of specification.

Cue: Acknowledge notification.

If earlier 3D printouts are requested state the previous 3D are within limit

Comments: As the CRS may start taking actions to correct such as contacting the RE and reviewing the LCO for applicability. This would constitute adequate notification.

SAT UNSAT Comment Number

---

11 8.6 Notify Shift Management of surveillance completion.

Standard: Notifies Shift Management of surveillance completion. Enters stop date, stop time, and initials CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue: Acknowledge notification.

Once reported, ask what would you do?

Comments:

SAT UNSAT Comment Number

---

12 8.7 A copy of 3D Case used shall be signed, dated, labeled "9820.01", and attached to CPS 9820.01D001, Power Distribution Limits Data Sheet.

Standard: Attaches a signed, dated, labeled copy of the 3D Case used to CPS 9820.01D001, Power Distribution Limits Data Sheet.

Cue:

Comments:

SAT UNSAT Comment Number

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*13 9.1 **Failure to meet the Acceptance Criteria given below shall constitute a failure to comply with the applicable LCO. Tech Specs should be immediately reviewed to identify the Action Statements needed for implementation.**

- MAPRAT is ≤ 1.0.
- **MLCPR is ≤ 1.0.**
- **MFLPD is ≤ 1.0.**

Standard: Enters LCOs 3.2.2 and 3.2.3. Determines that LCOs 3.2.2 and 3.2.3 actions require restoration of limits within 2 hours.

Cue: If the Supplemental Review sheet, inform the student that it is at the bottom of the Data sheet.

Comments:

SAT UNSAT Comment Number

JPM NUMBER: 031345J001 **REVISION:** 02

TERMINATING CUES:

Daily surveillance CPS 9820.01, Power Distribution Limits is complete.
LCOs 3.2.2 and 3.2.3 are entered.

STOP TIME: _____

K/A REFERENCE NUMBERS			
		Importance Rating	
K/A System Number	K/A Number	RO	SRO
Generic	2.1.19	3.0	3.0

JPM NUMBER: 031345J001 **REVISION:** 02

INITIATING CUE

You are the Control Room Supervisor. The Shift Manager discovers that daily surveillance CPS 9820.01, Power Distribution Limits needs to be completed prior to exceeding its frequency. All of the Reactor Operators are busy with other plant activities. The Shift Manager directs you to perform the daily surveillance CPS 9820.01, Power Distribution Limits. Report when the task is complete.

PAGE 1

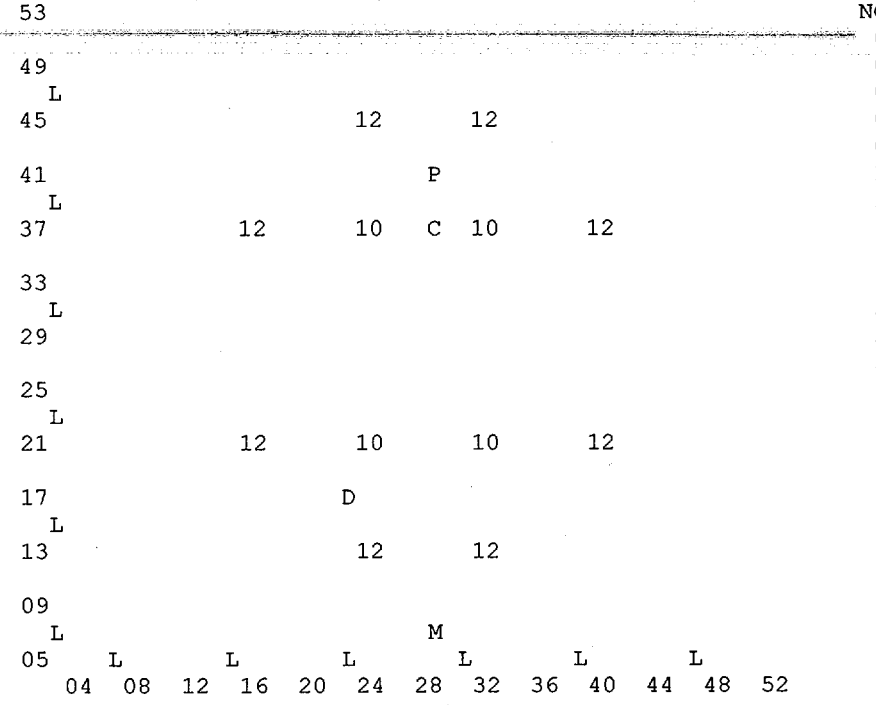
			CLINTON CYCLE 9		SEQUENCE NO 23
CORE PARAMETERS			3D MONICORE		8-JUN-2002 17:58 CALCULATED
POWER	MWT	2890.	PERIODIC LOG		8-JUN-2002 17:59 PRINTED
POWER	MWE	967.			CASE ID FMLD1950708205855
FLOW	MLB/HR	76.102	CALC RESULTS		RESTART FMLD1950708195845
FPAPDR		0.824			LPRM SHAPE - FULL CORE
SUBC	BTU/LB	23.49	Keff	1.0000	
PR	PSIa	1027.9	XE WORTH %	-2.52	LOAD LINE SUMMARY
CORE	MWD/sT	20850.8	XE/RATED	1.00	CORE POWER 83.2%
CYCLE	MWD/sT	8741.6			CORE FLOW 90.0%
MCPR		1.236			LOAD LINE 89.9%

CORRECTION FACTOR: MFLCPR= 1.000 MFLPD= 1.000 MAPRAT= 0.999
OPTION: ARTS DUAL LOOP MANUAL FLOW MCPRLIM= 1.240

MOST LIMITING LOCATIONS (NON-SYMMETRIC)

MFLCPR	LOC	MFLPD	LOC	MAPRAT	LOC	PCRAT	LOC
1.003	37-28	1.002	17-22-18	0.821	7-28- 5	0.798	41-28-16
1.001	39-26	0.912	7-28- 5	0.817	15-30-16	0.798	19-28-16
0.996	41-28	0.912	41-28-16	0.817	11-22-13	0.797	7-28- 5
0.973	11-28	0.902	19-28-16	0.816	19-26-16	0.791	39-22-20
0.940	13-32	0.896	15-38-18	0.813	19-30-15	0.782	9-22-13
0.939	9-26	0.895	21-26-16	0.803	7-26-12	0.779	11-20-13
0.937	11-20	0.893	17-26-16	0.802	9-36-13	0.779	17-26-16
0.930	39-22	0.889	9-22-13	0.798	11-30-11	0.777	11-28-15
0.927	7-28	0.889	11-20-13	0.796	9-26- 5	0.776	13-32-16
0.923	9-22	0.888	13-32-16	0.795	39-22-20	0.774	47-26-12

SEQ. B-2 C=MFLCPR D=MFLPD M=MAPRAT P=PCRAT *=MULTIPLE



CORE AVE AXIAL NOTCH	REL PW	LOC
00	0.238	25
02	0.446	24
04	0.804	23
06	0.963	22
08	1.056	21
10	1.158	20
12	1.191	19
14	1.163	18
16	1.182	17
18	1.220	16
20	1.215	15
22	1.187	14
24	1.212	13
26	1.207	12
28	1.181	11
30	1.170	10
32	1.166	09
34	1.131	08
36	1.085	07
38	1.072	06
40	1.050	05
42	0.998	04
44	0.920	03
46	0.749	02
48	0.237	01

CORE AVERAGE RADIAL POWER DISTRIBUTION

RING #	1	2	3	4	5	6	7
REL PW	0.890	1.084	1.113	1.102	1.155	1.145	0.727

JPM NUMBER: 031345J001 **REVISION: 02**

CALIBRATED LPRM READINGS 8-JUN-2002 17:58 CALCULATED
8-JUN-2002 17:59 PRINTED

47D		40.1	49.8	55.7	45.9	30.2
C		57.0	59.8	60.3	64.5	43.0
B		61.2	63.6	60.9	69.2	41.9
A		51.1	54.9	49.5	63.0	27.7
39D	35.4	51.3	58.4	61.1	57.5	46.0
C	55.8	62.7	60.3	59.6	66.5	67.9
B	60.0	65.2	60.7	57.0	66.7	70.2
A	52.7	61.1	50.4	44.4	54.7	63.8
31D	39.9	51.6	55.8	56.0C	55.7	48.5
C	63.7	71.1	68.3	63.1	72.6P	70.4
B	69.6	71.2	66.7	59.2	72.9	73.4
A	67.6M	69.0	61.1	45.4	71.1	71.8
23D	40.0	54.3	58.1	57.9	59.5	48.0
C	62.2	67.3D	63.7	59.2	66.8	69.0
B	67.1	67.1	61.4	56.9	66.6	71.1
A	66.5	58.6	48.7	44.2	55.6	66.1
15D	28.5	46.2	55.5	57.2	0.0	39.4
C	42.4	63.6	62.8	59.1	65.4	59.1
B	43.2	68.6	61.9	57.4	67.6	62.2
A	0.0	61.7	49.9	44.3	64.3	50.4
07D		29.1	39.3	40.7	36.6	
C		41.4	58.6	56.6	54.5	
B		42.3	64.8	61.8	58.3	
A		31.2	57.2	55.6	48.4	
	06	14	22	30	38	46

LPRM SHAPE - FULL CORE

OF TIPS REJECTED: 1

FAILED SENSORS:
LPRM (2 SIGNAL FAILED)
615A 3815D
LPRM (0 PANACEA REJECTED)
OTHER SENSORS (0 TOTAL)
SUB RODS
NONE

T = TIP RUN RECOMMENDED
C = MFLCPR LOCATION
M = MAPRAT LOCATION
D = MFLPD LOCATION
P = PCRAT LOCATION
* = MULTIPLE LIMIT

CORE SUMMARY

CORE POWER	83.2%	CALC SUB FLOW	91.3%	DP MEAS PSI		15.52
CORE FLOW	90.0%	OPER SUB FLOW	-1.2%	DP CALC PSI		20.52
LOAD LINE	89.9%	FLOW BASIS	MEAS	FEEDWTR FLOW MLB/HR		12.35

APRM CALIBRATION

	A	B	C	D
READING	83.7	83.9	83.5	83.5
AGAF	0.994	0.992	0.997	0.997

TIP RUNS RECOMMENDED
STRINGS: NONE

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.2.2

Revision Number: 00

Date: 04/25/2002

Developed By:	**Paul M. Higginbotham**	**4/25/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/7/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/21/02**
	Training Department	**Date**

JPM NUMBER: SRO A.2.2 **REVISION:** 00

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

JPM NUMBER: SRO A.2.2 **REVISION:** 00

Operator's Name: _____
Job Title: ❑ SRO

JPM Title: Review surveillance and recognize entry condition to Reactor Coolant leakage off-Normal(Faulted)
JPM Number: SRO A.2.2
Revision Number: 00
Task Number and Title: Knowledge of surveillance procedures

K/A Number: A2.2.12 Importance SRO 3.4

Suggested Testing Environment: Any

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References: CPS 9000.01, CONTROL ROOM SURVEILLANCE LOG, Revision 33
CPS 9000.01D001, CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3, DATA SHEET, Revision 46, Section 8.10

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: SRO A.2.2 **REVISION: 00**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

N/A

TASK STANDARDS:

Review of the Reactor Coolant Leakage verification and calculation (CPS 9000.01D001, Control Room Surveillance Log – Mode 1, 2, 3 Data Sheet) enter CPS 4001.02 Reactor Coolant Leakage is required.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 9000.01, CONTROL ROOM SURVEILLANCE LOG, Revision 33
CPS 9000.01D001, CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3, DATA SHEET, Revision 46, Section 8.10

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.
The following errors errors are in the log and may be identified:

8.10.3.c) Reading selected from 8 hours before vice 24 hours before.
8.10.3.i) Failure of the log taker to identify discrepancies to Shift Management:

- Reduction in calculated leakage rate from previous shifts
- Difference between calculated leakage rate and leakage rate recorded from recorders 1E31-R552 and 1E31-R551
- Exceeding the Comparison Guideline of 1.4 gpm
- Entry condition to CPS 4001.01, Reactor Coolant Leakage met (≥2.5 gpm unidentified leakage)

Give the examinee the attached copy of CPS 9000.01D001, DW Floor Drain Leakage calculation and verification after you have presented the Initial Conditions and Initiating Cue.

JPM NUMBER: SRO A.2.2 **REVISION: 00**

INITIAL CONDITIONS AND INITIATING CUE:

The unit is in Mode 1 at full power. The Tuesday Swing shift Control Room Surveillance Log has been completed. You are directed to review the Swing shift's Drywell Floor Drain Leakage Rate calculation.

Report when you have completed the review.

START TIME: _____

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS 9000.01D001

***1.**	**Reviews the Tuesday Swing shift DW Floor Drain leakage calculation and verification and enters CPS 4001.01, Reactor Coolant Leakage.**
Standard	• **Indentifies entry condition to CPS 4001.01, Reactor Coolant Leakage met (≥2.5 gpm unidentified leakage)**
CUE	If redirected to reperform acknowledge the direction
Comments	May also identify the following errors: 8.10.3.c) Reading selected from 8 hours before vice 24 hours before. 8.10.3.i) Failure of the log taker to identify discrepancies to Shift Management: • Reduction in calculated leakage rate from previous shifts • Difference between calculated leakage rate and leakage rate recorded from recorders 1E31-R552 and 1E31-R551 • Exceeding the Comparison Guideline of 1.4 gpm (calculated)
	SAT UNSAT Comment Number

2.	Directs reperformance of the Control Room Operator Surveillance Log – Mode 1, 2, 3 Data Sheet Supplemental Review Sheet
Standard	Log redirected to resolve/correct log
CUE	If redirected to reperform acknowledge the direction. State 5 minutes have gone by and provide a corrected calculated value of 2.72 GPM
Comments	This may not be performed due to entry into the CPS 4001.01, Reactor Coolant Leakage and this JPM have evaluated the examinee ability to recognize the entry condition completing this JPM

SAT UNSAT Comment Number

TERMINATING CUES:

Review the DW Floor Drain leakage verification log and recognizes entry condition to CPS 4001.01, Reactor Coolant Leakage.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
GENERIC	2.2.12	3.0	3.4

JPM NUMBER: SRO A.2.2 **REVISION: 00**

INITIATING CUE

The unit is in Mode 1 at full power. The Tuesday Swing shift Control Room Surveillance Log has been completed. You are directed to review the Swing shift's Drywell Floor Drain Leakage Rate calculation.

Report when you have completed the review.

lastpage

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET CPS 9000.01D001

MON	Today	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE

NOTE

CPS 4001.01, Reactor Coolant Leakage shall be entered if any of the following leakage rates are observed:

- *Any ITS LCO 3.4.5 RCS Operational LEAKAGE limitation is exceeded.*
- *Unidentified LEAKAGE increase of ≥ 0.5 gpm in a 4 hour period (1.0 gpm in 8 hours).*
- *Unidentified LEAKAGE exceeds 2.5 gpm.*

1. (Record) Flow Readings From 1H13-P855
(at ≈ 8 hour intervals)

a) Time readings taken

M	0005	0010					
D	0810	0810					
S	1615	1615					

b) DW FLR FLOW FROM SUMP TOTAL (ITS LCO 3.4.5 (a))
If the Sump (bubblier level) Flow Detector totalizer in step 8.10.1.b is not functioning, use alternate Pump (magnetic motor) Flow Detector totalizer data in step 8.10.1.c for unidentified leakage calculations

M	048931	052009					
D	049987	053155					
S	051043	054672					

c) DW FLR FLOW PMP DISCH TOTAL (ITS LCO 3.4.5 (a))

M	NA	NA					
D	NA	NA					
S	NA	NA					

d) DW EQUIP FLOW (ITS LCO 3.4.5 (a))
If DW Equip Flow Totalizer is not functioning, a Manual Determination of DW RE In-Leakage Flow Rate shall be performed using methodology described in CPS 3315.02, Leak Detection (LD) and recorded in step 8.10.4.g.1.

M	NA	NA					
D	NA	NA					
S	NA	NA					

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET CPS 9000.01D001

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

2. DW Floor Drain Sump Flow Rate Verifications (at ≈ 8 hour intervals)

	MON	Today	WED	THU	FRI	SAT	SUN
a) Check instrument used: If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.	X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP
b) (Record - Monday only) Enter the DW FLR DRN FLOW, LOW RANGE values from Sunday. (From step 8.10.2.c)							
M	2.1						
D	2.1						
S	2.2						
c) (Record) Enter the DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1, or alternate DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1.							
M	2.2	2.4					
D	2.2	2.4					
S	2.2	2.8					

			MON	Today	WED	THU	FRI	SAT	SUN
8.10	REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)								
	d) (Initial) (MODE 1) Verify current DW Floor Drain/ flow rate is ≤ 2 gpm above any reading of the previous 24 hours. (ITS SR 3.4.5.1)	M	DS	DS					
		D	BR	BR					
		S	JG	JG					
	e) (Initial) Verify ≤ 5 gpm on DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552 Channel 1 or alternate DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1. (ITS SR 3.4.5.1)	M	DS	DS					
		D	BR	BR					
		S	JG	JG					

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET CPS 9000.01D001

	MON	Today	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

3. Unidentified Leakage Calculation using Flow Totalizer

a) Check instrument used: If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.	X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP
b) (Record) The current value of DW FLR FLOW SUMP TOTAL from step 8.10.1.b or alternate DW FLR FLOW PMP DISCH TOTAL from step 8.10.1.c.							
c) (Record) The value of DW FLR SUMP FLOW taken ≈ 24 hours before (DW FLR FLOW PMP DISCH TOTAL, alternate) Sunday's value: 045907 / 046915 / 047923							
d) (Record) The total number of gallons by subtracting c) from b).							
e) (Record) The number of minutes since reading in item c).							
f) (Record) Flow rate since last reading: Reading from d) divided by elapsed time e).							
M							
b)	048931	052099					
c)	045907	048931					
d)	3024	3168					
e)	1440	1445					
f)	2.10	2.19					
D							
b)	049987	053155					
c)	046915	049987					
d)	3072	3168					
e)	1440	1440					
f)	2.13	2.2					
S							
b)	051043	054960					
c)	047923	053155					
d)	3120	1805					
e)	1440	1440					
f)	2.17	1.25					

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET CPS 9000.01D001

			MON	Today	WED	THU	FRI	SAT	SUN
8.10	REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)								
g)	(Record) Enter the	M	2.1	2.3					
	DW FLR DRN (SUMP) FLOW, LOW RANGE	D	2.1	2.3					
	from recorder 1E31-R552, Channel 1.	S	2.2	2.4					
h)	(Record) Enter the	M	2.2	2.4					
	DW FLR DRN (PUMP) FLOW, LOW RANGE	D	2.2	2.4					
	from recorder 1E31-R551, Channel 1.	S	2.2	2.8					

3. Unidentified Leakage Calculation using Flow Totalizer (cont'd)

i) (Initial) Perform Channel Check of the calculated DW Floor Drain Sump flow rate (Step f above) and DW FLOOR DRAIN (SUMP) and (PUMP) FLOW rates (g and h above).	DS/BR/JG	DS/BR/JG	/ /	/ /	/ /	/ /	/ /

Comparison Guideline: 1.4 gpm

If MODE of operation of Sump Pumps (auto/manual) is changed, then at least 2 pump out cycles must occur before a reliable Channel Check can be performed.

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DDATA SHEET
SUPPLEMENTAL REVIEW SHEET

Corrective Action Taken

Operability Requirements:

ITS LCOs: see body of Data Sheet

ORM ORs: see body of Data Sheet

ODCM ORs: see body of Data Sheet

As applicable:

Initiated Condition Report No. _____

Initiated Work Document No. _____

Comments/Deficiencies

_____

_____

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Review and Approval

Surveillance Coordinator: _____
(Signature) (Date)

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET CPS 9000.01D001

MON	Today	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE

KEY

NOTE

CPS 4001.01, Reactor Coolant Leakage shall be entered if any of the following leakage rates are observed:

- *Any ITS LCO 3.4.5 RCS Operational LEAKAGE limitation is exceeded.*
- *Unidentified LEAKAGE increase of ≥ 0.5 gpm in a 4 hour period (1.0 gpm in 8 hours).*
- *Unidentified LEAKAGE exceeds 2.5 gpm.*

1. (Record) Flow Readings From 1H13-P855
(at ≈ 8 hour intervals)

a) Time readings taken

M	0005	0010					
D	0810	0810					
S	1615	1615					

b) DW FLR FLOW FROM SUMP TOTAL
(ITS LCO 3.4.5 (a))
If the Sump (bubblier level) Flow Detector totalizer in step 8.10.1.b is not functioning, use alternate Pump (magnetic motor) Flow Detector totalizer data in step 8.10.1.c for unidentified leakage calculations

M	048931	052009					
D	049987	053155					
S	051043	054672					

c) DW FLR FLOW PMP DISCH TOTAL
(ITS LCO 3.4.5 (a))

M	NA	NA					
D	NA	NA					
S	NA	NA					

d) DW EQUIP FLOW
(ITS LCO 3.4.5 (a))
If DW Equip Flow Totalizer is not functioning, a Manual Determination of DW RE In-Leakage Flow Rate shall be performed using methodology described in CPS 3315.02, Leak Detection (LD) and recorded in step 8.10.4.g.1.

M	NA	NA					
D	NA	NA					
S	NA	NA					

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET

CPS 9000.01D001

MON	Today	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

KEY

2. DW Floor Drain Sump Flow Rate Verifications (at ≈ 8 hour intervals)

a) Check instrument used:

If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.

X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP

b) (Record - Monday only) Enter the DW FLR DRN FLOW, LOW RANGE values from Sunday. (From step 8.10.2.c)

M	2.1						
D	2.1						
S	2.2						

c) (Record) Enter the DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1, or alternate DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1.

M	2.2	2.4					
D	2.2	2.4					
S	2.2	2.8					

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET CPS 9000.01D001

		MON	Today	WED	THU	FRI	SAT	SUN
8.10	REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)							
d)	(Initial) (MODE 1) Verify current DW Floor Drain/ flow rate is ≤ 2 gpm above any reading of the previous 24 hours. (ITS SR 3.4.5.1)	M	DS	DS				
		D	BR	BR				
		S	JG	JG				
e)	(Initial) Verify ≤ 5 gpm on DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552 Channel 1 or alternate DW FLR DRN (PUMP) FLOW, LOW RANGE 1E31-R551, Channel 1. (ITS SR 3.4.5.1)	M	DS	DS				
		D	BR	BR				
		S	JG	JG				

KEY

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET

CPS 9000.01D001

MON	Today	WED	THU	FRI	SAT	SUN

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

KEY

3. Unidentified Leakage Calculation using Flow Totalizer

a) Check instrument used:

If the preferred DW FLR DRN (SUMP) FLOW, LOW RANGE 1E31-R552, Channel 1 is not functioning, use the alternate DW FLR DRN (PUMP) FLOW, LOW RANGE, 1E31-R551, Channel 1.

X SUMP ☐ PUMP	X SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP	☐ SUMP ☐ PUMP

b) (Record) The current value of DW FLR FLOW SUMP TOTAL from step 8.10.1.b or alternate DW FLR FLOW PMP DISCH TOTAL from step 8.10.1.c.

c) (Record) The value of DW FLR SUMP FLOW taken ≈ 24 hours before (DW FLR FLOW PMP DISCH TOTAL, alternate)

Sunday's value: 045907 / 046915 / 047923

d) (Record) The total number of gallons by subtracting c) from b).

e) (Record) The number of minutes since reading in item c).

f) (Record) Flow rate since last reading: Reading from d) divided by elapsed time e).

M							
b)	048931	052099					
c)	045907	048931					
d)	3024	3168					
e)	1440	1445					
f)	2.10	2.19					
D							
b)	049987	053155					
c)	046915	049987					
d)	3072	3168					
e)	1440	1440					
f)	2.13	2.2					
S							
b)	051043	054960					
c)	047923	053155					
d)	3120	1805					
e)	1440	1440					
f)	2.17	1.25					

Miss calc and should be 2.72 greater than 2.5

CONTROL ROOM SURVEILLANCE LOG - MODE 1, 2, 3 DATA SHEET

CPS 9000.01D001

8.10 REACTOR COOLANT SYSTEM - OPERATIONAL LEAKAGE (cont'd)

		MON	Today	WED	THU	FRI	SAT	SUN
g) (Record) Enter the DW FLR DRN (SUMP) FLOW, LOW RANGE from recorder 1E31-R552, Channel 1.	M	2.1	2.3					
	D	2.1	2.3					
	S	2.2	2.4					
h) (Record) Enter the DW FLR DRN (PUMP) FLOW, LOW RANGE from recorder 1E31-R551, Channel 1.	M	2.2	2.4					
	D	2.2	2.4					
	S	2.2	2.8					

>2.5

3. Unidentified Leakage Calculation using Flow Totalizer (cont'd)

	MON	Today	WED	THU	FRI	SAT	SUN
i) (Initial) Perform Channel Check of the calculated DW Floor Drain Sump flow rate (Step f above) and DW FLOOR DRAIN (SUMP) and (PUMP) FLOW rates (g and h above).	DS/BR/JG	DS/BR/JG	/ /	/ /	/ /	/ /	/ /

Comparison Guideline: 1.4 gpm

If MODE of operation of Sump Pumps (auto/manual) is changed, then at least 2 pump out cycles must occur before a reliable Channel Check can be performed.

KEY

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.3.2

Revision Number: 00

Date:4/1/02

Developed By:	**Mark Otten**	**4/1/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/7/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/22/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.3.2 **REVISION: 00**

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

JPM NUMBER: SRO A.3.2 **REVISION: 00**

Operator's Name:_____
Job Title: ❑SRO

JPM Title: Request Radiation Exposure Extension.
JPM Number: SRO A.3.2
Revision Number: 00
Task Number and Title: Ability to perform procedures to reduce excessive levels of radiation and guard against personnel exposure.

K/A Number 2.3.10 Importance 3.3

Suggested Testing Environment: Any

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

Estimated Time to Complete: 40 minutes **Actual Time Used:** ____ minutes

References:

RP-AA-203, Exposure Control and Authorization

JPM NUMBER: SRO A.3.2 **REVISION: 00**

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: _____

_____

_____

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_____

Evaluator's Name: _____

Evaluator's Signature: _____ Date: _____

JPM NUMBER: SRO A.3.2 **REVISION: 00**

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:

Determine Bob has the lowest exposure and fill out Section I of Attachment 1 of RP-AA-203

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:
None
PROCEDURAL/REFERENCES:

RP-AA-203, Exposure Control and Authorization

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

1. You are the WCS, the Unit is at 50% power.
2. An operator is required to support the FIN team during the repair of valve 1FW042A "Rx Feedwater Flow Inst Root" in the Aux Bldg STEAM TUNNEL.
3. If the work is not completed this shift the Unit will have to enter a shutdown LCO.
4. The electronic dose tracking system is currently unavailable.
5. This is a NON EMERGENCY situation.
6. It is expected that the task will take 30 minutes to complete.
7. The dose in the work area is 80 mrem/hr.
8. Only operators Joe, Steve, Bob, and Tim are qualified to perform the required tasks.

9. The following is a list of the operators that are available to perform the task and their exposure histories.

Name	ID Number	Annual Non ROG TEDE Dose	Annual Mid West Rog TEDE Dose	Annual CPS TEDE Dose
Joe	456-09-0022	110 mrem	345 mrem	1527 mrem
Steve	716-53-1129	154 mrem	309 mrem	1625 mrem
Bob	943-39-1589	0 mrem	200 mrem	1780 mrem
Tim	064-88-9935	107 mrem	375 mrem	1519 mrem

10. The Shift Manager directs you to request approval to raise the administrative dose control level per RP-AA-203, Exposure Control and Authorization for an operator so the task may be 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

RP-AA-203, Exposure Control and Authorization
4.2. Authorization To Raise Administrative Dose Control Levels (ADCLs)

Step 1: 4.2.1, **USE** Attachment 1, Dose Control Level Extension Form, or a computerized equivalent, to authorize exposures for adult individuals in excess of 2000 mrem routine TEDE in a year.

Standard:
- All exposures listed in the table count towards needing an extension
- Determine that Bob has the lowest exposure

Comments

SAT UNSAT Comment Number

4.2.2. A supervisor from the department requesting approval shall complete Section I of Attachment 1 and submit the request to the Radiation Protection Department indicating:

-The name, identification number, and signature of the individual for whom a dose extension is being requested.

***Step 2** **Fills in NAME and SSN for Bob on Section I of Attachment 1 of RP-AA-203**

Standard: Critical to identify and document Bob as the lowest dose
Writes Bob in Name block and 943-39-1589 in SSN block

CUE: When examinee request that Bob sign the form state:
Bob has signed the form

Comments

SAT UNSAT Comment Number

4.2.2:
-Whether or not other qualified individuals with lower dose are available to perform the work.

***Step 3**	**Completes line 1 of Section I of Attachment 1 of RP-AA-203**
Standard	Checks No and writes in the remarks that this operator has the lowest dose of the operators that are available and qualified to perform this task. (or words to that effect.)
Comments	Marking NO is Critical

SAT UNSAT Comment Number

4.2.2:
-A detailed explanation of why the dose extension is necessary.

Step 4	Completes line 2 of Section I of Attachment 1 of RP-AA-203
Standard	Writes to prevent entering a shutdown LCO. (or words to that effect.)
Comments	

SAT UNSAT Comment Number

4.2.2:
-The requested annual TEDE limit for the individual (expressed in 500 mrem increments, i.e. 2500 mrem, 3000 mrem, etc.)

***Step 5**	**Complete line 3 of Section I of Attachment 1 of RP-AA-203**
Standard	Writes 2500 in the blank provided.
Comments	

SAT UNSAT Comment Number

***Step 6**	**Signs and dates the form**
Standard	Examinee signs their name and fills in today's date.
Comments	

SAT UNSAT Comment Number

Step 7	Forwards form to RP for approval.
Standard	Examinee states that the form must be routed to RP for approval.
CUE	As RP state that the approval form is being routed.
Comments	

SAT UNSAT Comment Number

TERMINATING CUES:

Determine Bob has the lowest exposure and fill out Section I of Attachment 1 of RP-AA-203 and RP is routing the form for approval.

STOP TIME: _____

INITIATING CUE

1. You are the WCS, the Unit is at 50% power.
2. An operator is required to support the FIN team during the repair of valve 1FW042A "Rx Feedwater Flow Inst Root" in the Aux Bldg STEAM TUNNEL.
3. If the work is not completed this shift the Unit will have to enter a shutdown LCO.
4. The electronic dose tracking system is currently unavailable.
5. This is a NON EMERGENCY situation.
6. It is expected that the task will take 30 minutes to complete.
7. The dose in the work area is 80 mrem/hr.
8. Only operators Joe, Steve, Bob, and Tim are qualified to perform the required tasks.
9. The following is a list of the operators that are available to perform the task and their exposure histories.

Name	ID Number	Annual Non ROG TEDE Dose	Annual Mid West Rog TEDE Dose	Annual CPS TEDE Dose
Joe	456-09-0022	110 mrem	345 mrem	1527 mrem
Steve	716-53-1129	154 mrem	309 mrem	1625 mrem
Bob	943-39-1589	0 mrem	200 mrem	1780 mrem
Tim	064-88-9935	107 mrem	375 mrem	1519 mrem

10. The Shift Manager directs you to request approval to raise the administrative dose control level per RP-AA-203 "Exposure Control and Authorization" for an operator so the task may be completed.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.4.2

Revision Number: 00

Date:4/2/02

Developed By:	**Mark Otten**	**4/2/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/5/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/7/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/22/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.4.2 **REVISION: 00**

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

JPM NUMBER: SRO A.4.2 **REVISION: 00**

Operator's Name:_____
Job Title: ❑SRO

JPM Title: Transfer Command and Control to TSC
JPM Number:SRO A.4.2
Revision Number:00
Task Number and Title: Ability to take actions called for in the facility emergency plan/including (if required) supporting or acting as emergency coordinator

K/A Number 2.4.38 Importance 4.0

Suggested Testing Environment: Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References:

EP-AA-112, EMERGENCY RESPONSE ORGANIZATION (ERO) / EMERGENCY RESPONSE FACILITY (ERF) ACTIVATION AND OPERATION

JPM NUMBER: SRO A.4.2 **REVISION: 00**

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: SRO A.4.2 **REVISION: 00**

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:

Fill out and perform the turnover of Command and Control to the TSC in accordance with Attachment 1 of EP-AA-112.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:
None
PROCEDURAL/REFERENCES:

EP-AA-112, EMERGENCY RESPONSE ORGANIZATION (ERO) / EMERGENCY RESPONSE FACILITY (ERF) ACTIVATION AND OPERATION

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

1. You are the Shift Manager / Shift Emergency Director.

2. CPS is in an emergency situation resulting in a reactor trip and HPCS injection. Conditions have degraded and you declared a Site Emergency under EAL FS1 30 minutes ago, due to water level has been less then –193" and reactor coolant leakage is over 100 GPM in the drywell.

3. Traveling screen problems resulted in a trip of Circulating Water and service water pumps.

4. The TSC is fully activated and ready in all aspects to assume Command and Control. A rough log has been kept.

5. Perform the turnover of Command and Control to the TSC during a Site Emergency.

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

EP-AA-112, EMERGENCY RESPONSE ORGANIZATION (ERO) / EMERGENCY RESPONSE FACILITY (ERF) ACTIVATION AND OPERATION
Step 4.1.3.3. Command and Control of the event shall be transferred from the Control Room to the TSC (or EOF) utilizing EP-AA-112, Attachment 1, "Command and Control Turnover Briefing Form.

Note	Use the KEY to evaluate the information transmitted to the TSC to effect the turnover.

***Step 1** **Refer to EP-AA-112 Attachment 1**

Standard: Locate EP-AA-112 Attachment 1 and fill out the following information:

- Current Classification EAL.
- Time.
- Unit.
- Conditions met to determine this classification.
- Utility Message #
- State Message #
- Time for both
- Latest ENS Time
- Checks YES in Continuous Communications block

Note	Information to fill out the turnover form is available from the rough log. No cues need be given.
CUE	• Provide Examinee with a copy of the Rough Log • After locating Attachment 1, provide a copy.

Comments

SAT UNSAT Comment Number

***Step 2** **Perform turnover.**

Standard: Determines TSC ready to perform non-delegable functions (Checks YES for each on form):

- Classify events.
- Determine PARs and make notifications.
- Authorize exposures per EPA-400 limits.
- Authorize use of thyroid blocking agents.

CUE: As communicator in the TSC, answer YES to each of the parts of question #3 on the turnover form.

Comments

SAT UNSAT Comment Number

***Step 3** **Determines TSC will perform NARS, ENS, HPN, and environs Teams.**

Standard: Upon transfer of command and control, determines TSC will perform the following functions (Checks TSC for each on form):

- NARS
- ENS
- HPN
- Environs Teams.

CUE: As a communicator in the TSC, if asked you'll perform the NARS, ENS, HPN and Environs Teams reply yes.

Comments

SAT UNSAT Comment Number

*Step 4	**Transfers other pertinent information.**
Standard	Transfers other pertinent information: • ERDS Activated (YES) • Assembly (YES) • Evacuation (YES) • Release Occurring (NO) • Rad Concerns (NO) • In-plant Teams (YES) • Offsite Assistance Requested (NO)
CUE	As a communicator in the TSC, acknowledge the information transferred from the control room for Section #5 on the form. Do NOT provide answers, only acknowledge what is said.
Comments	

SAT UNSAT Comment Number

*Step 5	**Determines TSC has Command and Control.**
Standard	Determines TSC has Command and Control: • Ready to receive Command and Control (Checks TSC and YES). • Command and Control transferred (Checks TSC, and logs Time.) • Announces transfer to control room team.
CUE	Acknowledges TSC has command and control.
Comments	Notification to the MCR of transfer is not critical

SAT UNSAT Comment Number

TERMINATING CUES:

Fill out and perform the turnover of Command and Control to the TSC in accordance with Attachment 1 of EP-AA-112.

STOP TIME: _____

INITIATING CUE

1. You are the Shift Manager / Shift Emergency Director.

2. CPS is in an emergency situation resulting in a reactor trip and HPCS injection. Conditions have degraded and you declared a Site Emergency under EAL FS1 30 minutes ago, due to water level has been less then –193" and reactor coolant leakage is over 100 GPM in the drywell.

3. Traveling screen problems resulted in a trip of Circulating Water and service water pumps.

4. The TSC is fully activated and ready in all aspects to assume Command and Control. A rough log has been kept.

5. Perform the turnover of Command and Control to the TSC during a Site Emergency.

Facility: Clinton Power Station Date of Examination: 7/29/2002

Examination Level (circle one): RO / **SRO** Operating Test Number: **ILT0101-3**

	Administrative Topic/Subject Description	Describe method of evaluation: 1. ONE Administrative JPM, OR 2. TWO Administrative Questions
A.1	Conduct of Operations Plant Parameter Verification	JPM - Review an Offsite Source Power Verification with Out of Specification Readings. (faulted) K/A 2.1.33 Imp 4.0
	Conduct of Operations Apply Technical Specifications	JPM - Verifying Conditions are met to enter Mode 2 K/A 2.1.12 Imp 4.0
A.2	Equipment Control Surveillance Testing	JPM - Review a completed Control Rod / Position Indication Operability Surveillance and Identify Discrepancies (faulted). K/A 2.2.12 Imp 3.4
A.3	Radiation Control Control of Radiation Releases	JPM - Determine High Radiation in HVAC Stack and direct Mechanical Vacuum Pump Secured K/A 2.3.11 Imp 3.2
A.4	Emergency Plan Determine Protective Action Recommendations	JPM - Determine the PAR of evacuate 5 mile radius & 10 miles downwind K/A 2.4.44 Imp 4.0

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.1.a.3

Revision Number: 00

Date: 15 April 2002

Developed By:	**P.M. Higginbotham**	**4/15/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/22/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.1.a.3 **REVISION: 00**

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: SRO A.1.a.3 **REVISION: 00**

Revision Record (Summary)

1. **Revision 00,** This is a new JPM.

CLINTON POWER STATION
SYSTEM JPM

JPM NUMBER: SRO A.1.a.3 **REVISION: 00**

Operator's Name: _____
Job Title: ❑ SRO

JPM Title: Review an Offsite Source Power Verification, With Out of Specification Readings
JPM Number: SRO A.1.a.3
Revision Number: 00
Task Number and Title: 9082.01, Complete Control Room actions to perform the OFFSITE SOURCE POWER VERIFICATION

K/A Number 2.1.33 Importance SRO 4.0

Suggested Testing Environment: Any

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References: CPS 9082.01, OFFSITE SOURCE POWER VERIFICATION, Revision 36d

JPM NUMBER: SRO A.1.a.3 **REVISION: 00**

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: SRO A.1.a.3 **REVISION: 00**

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:

The completed Offsite Source Power Verification has been reviewed the out of specification parameters have been identified and LCO actions identified.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 9082.01, OFFSITE SOURCE POWER VERIFICATION, Revision 36d

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

Present the completed copy of CPS 9082.01, Offsite Source Power Verification, to the examinee when the Initiating Cue is presented.

INITIAL CONDITIONS AND INITIATING CUE:

The plant is operating at full power.

The Normal Frequency (7-day) performance of CPS 9082.01, Offsite Source Power Verification, has been completed.

Review the completed CPS 9082.01, Offsite Source Power Verification, for approval.

START TIME: _____

JPM NUMBER: SRO A.1.a.3 **REVISION: 00**

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.

Steps and sections may be performed in any order, independently and concurrently as desired to fulfill the surveillance criteria.

PERFORMANCE STEPS

1. Review of completed CPS 9082.01, Offsite Source Power Verification,.

Standard: Examinee begins review of completed 9082.01.

CUE

Comments

SAT UNSAT Comment Number

---

*2. **345 kV voltage low.**

Standard: Identifies voltage reading that is below the minimum acceptable level.

CUE
- To respond to student's inquiry for verification of the low voltage, respond by stating that all Voltage values for the 345 KV demonstrates a low out of specification value.
- Take the reported status and ask what would you do about it?

Comments

SAT UNSAT Comment Number

---

*3. **Technical Specification LCO.**

Standard: Enters ITS LCO 3.8.1, Condition:
- A.1 SR 3.8.1.1 within one hour
- A.2 restore Offsite source within 72 hours

CUE

Comments

SAT UNSAT Comment Number

JPM NUMBER: SRO A.1.a.3 **REVISION: 00**

4.	Corrective actions
Standard	• Would take actions to raise voltage such as raise generator voltage, contact System supervisor. • Initiates a Condition Report documenting failure of surveillance, • Addresses performers failure to identify out-of-specification voltage level.
CUE	Acknowledge possible corrective actions: • System supervisor to adjust voltage • RO to adjust Voltage • NLO to verify SVC operation • Station Duty Manager engineering assistance on SVC/RAT/SY issues • WCS will initiate condition report
Comments	
	SAT UNSAT Comment Number

TERMINATING CUES:

Out of specification data has been identified.
ITS LCO has been entered.

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Generic	2.1.33	3.4	4.0

JPM NUMBER: SRO A.1.a.3 **REVISION: 00**

INITIATING CUE

The plant is operating at full power.
The Normal Frequency (7-day) performance of CPS 9082.01, Offsite Source Power Verification, has been completed.
Review the completed CPS 9082.01, Offsite Source Power Verification, for approval.

Lastpage

Exelon SM
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CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.1.b.3

Revision Number: 00

Date: 5 May 2002

Developed By:	**B Price**	**5/5/02**
	Instructor	**Date**
Validated By:	**D. Jeans**	**5/15/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/7/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/22/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.1.b.3 **REVISION:** 00

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: SRO A.1.b.3 **REVISION: 00**

Revision Record (Summary)

1. **Revision 00,** This is a new JPM.

CLINTON POWER STATION
SYSTEM JPM

JPM NUMBER: SRO A.1.b.3 **REVISION: 00**

Operator's Name: _____
Job Title: ❑ SRO

JPM Title: Verifying Conditions are met to enter Mode 2
JPM Number: SRO A.1.a.3
Revision Number: 00
Task Number and Title: Verifying Conditions are met to enter Mode 2

K/A Number 2.1.12 Importance SRO 4.0

Suggested Testing Environment: Any

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

Estimated Time to Complete: 25 minutes **Actual Time Used:** ____ minutes

References:
CPS 3001.01, Approach to Critical
CPS 3001.01C001, Preparation For Startup Checklist
CPS 3001.01C002, Mode 2 Checklist

JPM NUMBER: SRO A.1.b.3 **REVISION: 00**

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: SRO A.1.b.3 **REVISION: 00**

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:

Directs Entering Mode 2 by Placing the Mode Switch to Startup/Standby.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 3001.01, Approach to Critical
CPS 3001.01C001, Preparation For Startup Checklist
CPS 3001.01C002, Mode 2 Checklist

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.
Present the completed copy of CPS 3001.01, CPS 3001.01C001, CPS 3001.01C002, to the examinee when the Initiating Cue is presented.

INITIAL CONDITIONS AND INITIATING CUE:

You have taken the shift as the CRS in Mode 4 with conditions established to startup. Review the procedures CPS 3001.01, Approach to Critical, CPS 3001.01C001, Preparation For Startup Checklist, CPS 3001.01C002, Mode 2 Checklist and identify any actions required for startup, then place the plant into Mode 2.

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.

Steps and sections may be performed in any order, independently and concurrently as desired to fulfill the surveillance criteria.

PERFORMANCE STEPS

Reviews:
1) CPS 3001.01, Approach to Critical
2) CPS 3001.01C001, Preparation For Startup Checklist
3) CPS 3001.01C002, Mode 2 Checklist

Standard — Examinee begins review of completed:
CPS 3001.01, Approach to Critical
CPS 3001.01C001, Preparation For Startup Checklist
CPS 3001.01C002, Mode 2 Checklist

CUE
Comments — Problems in the checklist:

- SRM D inoperable, Only Three required for LCO 3.3.1.2 and ORM 2.2.2
- FPM Particulate monitor Inoperable LCO 3.4.7 satisfied by the Gaseous monitor being operable
- RCIC Inoperable not required to be Operable until 150 PSIG
- RHR B NOT in standby after being removed from service does not satisfy LCOs 3.5.1 and 3.6.1.7
- RHR B Test Prep Switch in TEST, ORM 2.5.2 NOT satisfied

SAT UNSAT Comment Number

***8.1.7**	**Does NOT Enter Mode 2 by Placing the Mode Switch to Startup/Standby**
Standard	Does NOT direct Placing the Mode Switch into Startup/Standby. Identifies following LCO/ORM conditions are not met: LOC 3.5.1 ECCS and LCO 3.6.1.7, Containment spray LCOs and ORM 2.5.2, MOV Thermal Overload Protection
CUE	When the student point out problems ask what they would do about them. Once RHR B is recognized it is not in Standby state 1 hour has passed and RHR B is in Standby. When RHR B Test Prep Switch in TEST is recognized to be in TEST state the switch is placed in NORMAL.
Comments	

SAT UNSAT Comment Number

***8.1.7**	**Directs Entering Mode 2 by Placing the Mode Switch to Startup/Standby**
Standard	Directs Entering Mode 2 by Placing the Mode Switch to Startup/Standby
CUE	Reports Mode Switch is in Startup/Standby
Comments	

SAT UNSAT Comment Number

TERMINATING CUES:

Directs Entering Mode 2 by Placing the Mode Switch to Startup/Standby

STOP TIME: _____

K/A REFERENCE NUMBERS

		Importance Rating	
K/A SYSTEM NUMBER	**K/A NUMBER**	**RO**	**SRO**
Ability to apply TS for a system	2.1.12	2.8	4.0
Ability to perform specific system and Integrated plant procedures during different modes of plant operation	2.1.23	3.9	4.0

JPM NUMBER: SRO A.1.b.3 **REVISION: 00**

INITIATING CUE

You have taken the shift as the CRS in Mode 4 with conditions established to startup. Review the procedures CPS 3001.01, Approach to Critical, CPS 3001.01C001, Preparation For Startup Checklist, CPS 3001.01C002, Mode 2 Checklist and identify any actions required for startup, then place the plant into Mode 2.

MODE 2 CHECKLIST

SCOPE OF REVISION:

- Incorporated Specific Rev. 14a - rev marks not retained.
- C1R08:

  1) Incorporated EC 332064 - ORM OR 2.2.16 changed from CRVICs to MSLRM.

❶ Rev 15a - Editorial revision to step 6 to clarify the documentation requirements of LS-AA-105.

CONTINUOUS USE

ORIGINATOR: *Thomas J. Landin* **CLASS CODE:** *SNND1*

SQR: *Jim Bunning* **APPROVAL DATE:** *MAR 12 2002*

CURRENT CHANGES TO GENERAL REVISION

	Change #	*Date*	*List of Affected Pages*
❶	15a	05/02/02	1, 2
❷			
❸			
❹			
❺			

MODE 2 CHECKLIST (cont'd)

NOTE

IAW ITS LCO 3.0.4/ORM OR 1.2.4, when an ITS LCO/ORM OR is not met, entry into a MODE or other specified condition in the Applicability shall not be made except when the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time.

Exceptions to this are stated in the individual Specifications.

8. The following systems are required to be operable for entry into MODE 2. Demonstrate system operability by verifying that there are no outstanding items which affect system operability or invalidate previous surveillances, and that all attendant instrumentation and support systems are operable. (Place initials after each system operability declaration).

ITS LIMITING CONDITIONS FOR OPERATIONS (LCO's)		Initial
3.1.1	The Shutdown Margin requirements are satisfied IAW ITS LCO 3.1.1.	
3.1.3	Each Control Rod is operable IAW ITS LCO 3.1.3.	
3.1.4	The Control Rod Scram Times are met IAW ITS LCO 3.1.4.	
3.1.5	The Control Rod Scram Accumulators are operable IAW ITS LCO 3.1.5.	
3.1.7	The Standby Liquid Control System is operable IAW ITS LCO 3.1.7.	
3.1.8	The Scram Discharge Volume Vent and Drain Valves are operable IAW ITS LCO 3.1.8.	
3.3.1.1	The Reactor Protection System Instrumentation is operable IAW ITS LCO 3.3.1.1.	
3.3.1.2	The Source Range Monitor Instrumentation is operable IAW ITS LCO 3.3.1.2.	NOTE 1
3.3.2.1	The Control Rod Block Instrumentation is operable IAW ITS LCO 3.3.2.1.	
3.3.3.1	The Post Accident Monitoring Instrumentation is operable IAW ITS LCO 3.3.3.1.	
3.3.3.2	The Remote Shutdown System is operable IAW ITS LCO 3.3.3.2.	

MODE 2 CHECKLIST (cont'd)

ITS LIMITING CONDITIONS FOR OPERATIONS (LCO's) (cont'd) ~~Initial~~

3.5.1	The Emergency Core Cooling Systems are operable IAW ITS LCO 3.5.1.	NOTE 3
3.5.3	The Reactor Core Isolation Cooling System is operable IAW ITS LCO 3.5.3.	NOTE 4
3.6.1.1	Primary Containment is operable IAW ITS LCO 3.6.1.1.	
3.6.1.2	The Primary Containment Air Locks are operable IAW ITS LCO 3.6.1.2.	
3.6.1.3	The Primary Containment Isolation Valves are operable IAW ITS LCO 3.6.1.3, including verification that valves 1VR002A & B and 1VQ006A & B are sealed closed per ORM Attachment 4, NOTE g (refer to CPS 9064.03).	
3.6.1.6	The Low-Low Set Valves are operable IAW ITS LCO 3.6.1.6.	
3.6.1.7	The RHR Containment Spray System is operable IAW ITS LCO 3.6.1.7.	NOTE 3
3.6.1.8	The Main Steam Isolation Valve Leakage Control System is operable IAW ITS LCO 3.6.1.8.	
3.6.1.9	The Feedwater Leakage Control System (FWLCS) is operable IAW ITS LCO 3.6.1.9.	
3.6.2.3	The RHR Suppression Pool Cooling Subsystem is operable IAW ITS LCO 3.6.2.3.	NOTE 3
3.6.2.4	The Suppression Pool Makeup System is operable IAW ITS LCO 3.6.2.4.	
3.6.3.1	The Primary Containment Hydrogen Recombiners are operable IAW ITS LCO 3.6.3.1.	
3.6.3.2	The Primary Containment and Drywell Hydrogen Igniters are operable IAW ITS LCO 3.6.3.2.	
3.6.3.3	The Containment/Drywell Hydrogen Mixing systems are operable IAW ITS LCO 3.6.3.3.	
3.6.4.1	The Secondary Containment is operable IAW ITS LCO 3.6.4.1.	
3.6.4.2	The Secondary Containment Isolation Dampers are operable IAW ITS LCO 3.6.4.2	
3.6.4.3	The Standby Gas Treatment System is operable IAW ITS LCO 3.6.4.3.	

MODE 2 CHECKLIST (cont'd)

ORM OPERATIONAL REQUIREMENTS (OR's)		Initial
2.1.1	The Control Rod Housing is in place IAW ORM OR 2.1.1.	Bob
2.1.2	The Control Rod Scram Accumulators are operable IAW ORM OR 2.1.2.	Bob
2.2.1	The Average Power Range Monitors - Control Rod Block Instrumentation is operable IAW ORM OR 2.2.1.	Bob
2.2.2	The Source Range Monitors - Control Rod Block Instrumentation is operable IAW ORM OR 2.2.2.	Bob
2.2.3	The Intermediate Range Monitors - Control Rod Block Instrumentation is operable IAW ORM OR 2.2.3.	Bob
2.2.4	The Scram Discharge Volume - Control Rod Block Instrumentation is operable IAW ORM OR 2.2.4.	Bob
2.2.13	The ADS Accumulator Low Pressure Alarm System Instrumentation is operable IAW ORM OR 2.2.13.	Bob
2.2.14	The NSPS Self Test System is operable IAW ORM OR 2.2.14.	Bob
2.2.15	The Suppression Pool Monitoring Instrumentation is operable IAW ORM OR 2.2.15.	Bob
⓪ 2.2.16	The Main Steam Line Radiation Monitoring (MSLRM) Instrumentation is operable IAW ORM OR 2.2.16.	Bob
⓪ 2.4.1	All Snubbers are operable IAW ORM OR 2.4.1.	Bob
2.4.6	All Drywell Post-LOCA vacuum relief valves position indicators are operable IAW ORM OR 2.4.6.	Bob
2.4.7	The MSIV-LC system is operable IAW ORM OR 2.4.7.	Bob
2.5.1	The Containment Penetration Conductor Overcurrent Protective Devices are operable IAW ORM OR 2.5.1.	Bob
2.5.2	The Motor Operated Valves Thermal Overload Protection Devices are operable IAW ORM OR 2.5.2.	Note 5

All surveillances that are listed in Table 1 are complete. Bob

Completed: Date 1/4/2 Time XX:XX

MODE 2 CHECKLIST (cont'd)

COMMENTS/DISCREPANCIES

NOTE 1 SRM's A, B + C are the 3 required SRMs for STARTUP. SRM D is INOP

NOTE 2 Fission Product Monitor particulate detector failed ARXYZ, NOT required per LCO 3.4.7

NOTE 3 RHR B is in S/D cooling all ECCS Needs to be in STANDBY also Cont Spray

NOTE 4 RCIC out of service for oil change on the turbine (PM)

NOTE 5 RHR B Test Prep Switch in TEST to support S/D cooling valve operation

Performed by: B. PRICE (Print Name) (Initials) X/Y/Z (Date)

Performed by: _____ (Print Name) (Initials) (Date)

Performed by: _____ (Print Name) (Initials) (Date)

Performed by: _____ (Print Name) (Initials) (Date)

Performed by: _____ (Print Name) (Initials) (Date)

Completed: Date X/Y/Z Time XX:XX

REVIEW AND APPROVAL

Title	Signature	Date
Shift Management	Robert Penn	X/Y/Z
Surveillance Coordinator		

CX3 pkg 1 not stapled (est)

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.2.3

Revision Number: 00

Date: 04/17/2002

Developed By:	**Paul M Higginbotham**	**4/17/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/23/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

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 SRO Administrative JPM

JPM NUMBER: SRO A.2.3 **REVISION: 01**

Operator's Name: _____

Job Title: ■ SRO

JPM Title: Review a Completed Control Rod / Position Indication Operability Surveillance and Identify Discrepancies (Faulted)

JPM Number: SRO A.2.3
Revision Number: 00
Task Number and Title: 012201C539, Verify Control Rod/Position Indication Operability

K/A Number: 2.2.12 Importance: 3.4

Suggested Testing Environment: Any

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

Estimated Time to Complete: 17 minutes **Actual Time Used:** _____ minutes

References: CPS No. 9011.01, CONTROL ROD/POSITION INDICATION OPERABILITY, Revision 27c

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: _____

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

TASK STANDARDS:

Review of CPS 9011.01 Control Rod / Position Indication Operability surveillance has been completed.
Misaligned control rod has been identified.
Final Conditions of CPS 9011.01 not met has been determined.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

Marked up copy of CPS 9011.01, signing off all steps as satisfactory (procedure attached).
Copy of an OD-7 Option 2, OD-7 Option 4 and an Official 3D Case.

PROCEDURAL/REFERENCES:

CPS 9011.01, CONTROL ROD/POSITION INDICATION OPERABILITY, Revision 27c
CPS 1011.02, IMPLEMENTATION AND CONTROL OF SURVEILLANCE TESTING, Revision 20

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.
Provide CPS 9011.01, initial OD-7 and surveillance after reading the initiating cue.

INITIAL CONDITIONS: 100% Power

INITIATING CUE:

The plant is operating at 100% power. The A RO has completed CPS 9011.01 Control Rod/Position Indication Operability for the weekly surveillance. You are to review the completed surveillance for approval. 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

1. Review completed CPS 9011.01

Standard: Examinee begins review of 9011.01.

CUE:

Comments:

SAT UNSAT Comment Number

*2. **Review the initial and final Control Rod Position printouts to verify proper rod positions.**

Standard: Examinee performs review and identifies that rod 36-29 is at position 6 instead of position 4.

CUE:

Comments:

SAT UNSAT Comment Number

3. Notify the SM that rod 36-29 is at position 6 instead of position 4.

Standard: Final conditions requirement is determined NOT met, Shift Manager is notified of discrepancy.

CUE: Acknowledge notification of mis-positioned control rod.

Comments:

SAT UNSAT Comment Number

Terminating Cue:
Review of 9011.01 has been completed and the discrepancy identified.
Shift Manager has been notified of mis-positioned control rod.

STOP TIME: _____

K/A REFERENCE NUMBERS

K/A SYSTEM NUMBER	K/A NUMBER	Importance Rating RO	SRO
GENERIC	2.2.12	3.0	3.4

INITIATING CUE

The plant is operating at 100% power. The A RO has completed CPS 9011.01 Control Rod/Position Indication Operability for the weekly surveillance. You are to review the completed surveillance for approval. Report when the task is complete.

CPS 1011.02F001

RCCL: _____

SURV FILE: _____

COMPLETION DATE: _____

For Surveillance Coordinator Use Only

SURVEILLANCE TEST PACKAGE COVER SHEET

I. REASON FOR TEST

Procedure No.: 9011.01 CONTROL ROD/POSITION INDICATION OPERABILITY

EIN, Channel, Loop, Division, etc.

(Check appropriate box)

ROUTINE Test: [✓]

FREQUENT Surveillance (More frequent than seven days): [ ]

CONTINGENT Test:

a) Triggered by event or procedural trigger: [ ]
Describe: _____

b) Post Maintenance Test (PMT): [ ] AR/PM No. _____

II. TEST RESULTS

a) Operability Requirements:
(Section 9.1, as specific to the test attempted)

[✓] Fully Acceptable [ ] Not Applicable
[ ] Partially Acceptable [ ] Fully Unacceptable

b) Other Requirements:
(Section 9.2, as specific to the test attempted)

[ ] Fully Acceptable [✓] Not Applicable
[ ] Partially Acceptable [ ] Fully Unacceptable

Comments:

_____

_____

III. REVIEW AND APPROVAL

Immediate Supervisor of Test Performer _____ / _____
Signature Date

Test Package Total Pages _____

CPS 1011.02F001

TEST PERFORMER/INSPECTOR ETC. IDENTIFICATION

For Procedure No 9011.01

Performed by: Dick Long (Print Name) DL (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)
Performed by: (Print Name) (Init)	Performed by: (Print Name) (Init)

Electrical, C&I Use Only:

"AS FOUND" data out-of tolerance
(Circle as applicable):

a) Tech Spec data:	YES	NO	NA
b) Non-T.S data:	YES	NO	NA
c) CAT 'A'	YES	NO	NA

② Note: If CAT 'A' per CPS No. 1401.09, App.E, initiate 1401.09F002 *«CM-14»*

Surv. Coord.:

User Field A, item 6
(T, N, or B)

Job Performance Measure (JPM)

PAGE 1, **FINAL**

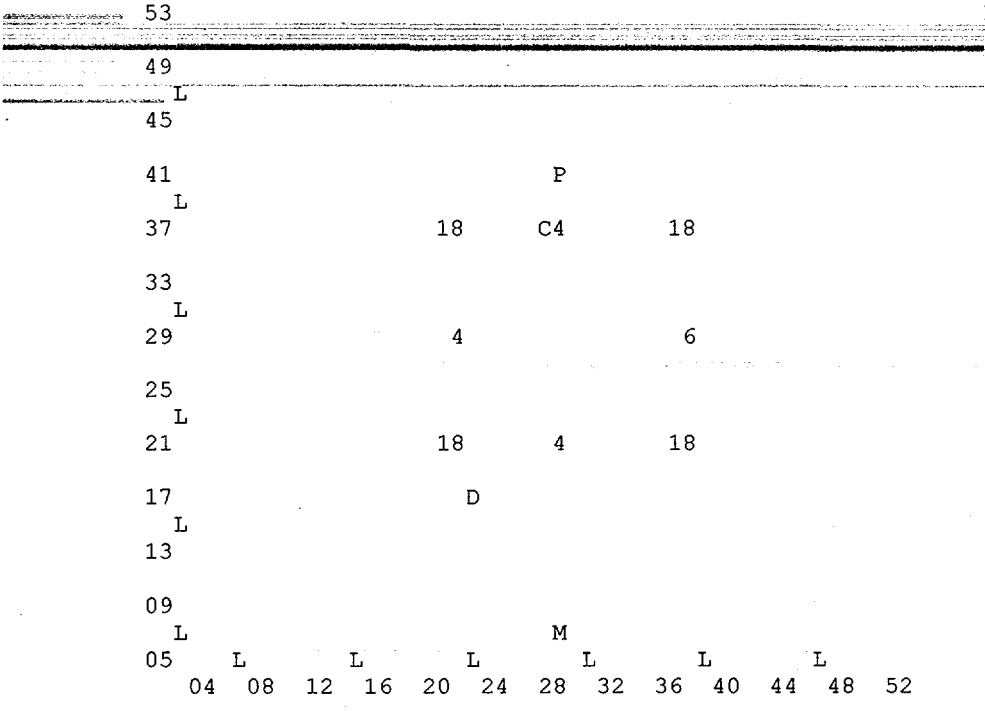
CORE PARAMETERS			CLINTON CYCLE 6		SEQUENCE NO 23	
			3D MONICORE		today-2xxx xx:xx CALCULATED	
POWER	MWT	2890.	PERIODIC LOG		today-2xxx xx:xx PRINTED	
POWER	MWE	967.			CASE ID FMLD1950708205855	
FLOW	MLB/HR	75.844	CALC RESULTS		RESTART FMLD1950708195845	
FPAPDR		0.824			LPRM SHAPE - FULL CORE	
SUBC	BTU/LB	23.49	Keff	1.0000		
PR	PSIa	1027.9	XE WORTH %	-2.52	LOAD LINE SUMMARY	
CORE	MWD/sT	20850.8	XE/RATED	1.00	CORE POWER	99.9%
CYCLE	MWD/sT	8741.6			CORE FLOW	89.8%
MCPR		1.268			LOAD LINE	107.2%

CORRECTION FACTOR: MFLCPR= 1.000 MFLPD= 1.000 MAPRAT= 0.999
OPTION: ARTS DUAL LOOP MANUAL FLOW MCPRLIM= 1.240

MOST LIMITING LOCATIONS (NON-SYMMETRIC)

MFLCPR	LOC	MFLPD	LOC	MAPRAT	LOC	PCRAT	LOC
0.978	37-28	0.912	17-22-18	0.821	7-28- 5	0.798	41-28-16
0.976	39-26	0.912	7-28- 5	0.817	15-30-16	0.798	19-28-16
0.975	41-28	0.912	41-28-16	0.817	11-22-13	0.797	7-28- 5
0.973	11-28	0.902	19-28-16	0.816	19-26-16	0.791	39-22-20
0.940	13-32	0.896	15-38-18	0.813	19-30-15	0.782	9-22-13
0.939	9-26	0.895	21-26-16	0.803	7-26-12	0.779	11-20-13
0.937	11-20	0.893	17-26-16	0.802	9-36-13	0.779	17-26-16
0.930	39-22	0.889	9-22-13	0.798	11-30-11	0.777	11-28-15
0.927	7-28	0.889	11-20-13	0.796	9-26- 5	0.776	13-32-16
0.923	9-22	0.888	13-32-16	0.795	39-22-20	0.774	47-26-12

SEQ. B-2 C=MFLCPR D=MFLPD M=MAPRAT P=PCRAT *=MULTIPLE



CORE AVE AXIAL NOTCH	REL PW	LOC
00	0.238	25
02	0.446	24
04	0.804	23
06	0.963	22
08	1.056	21
10	1.158	20
12	1.191	19
14	1.163	18
16	1.182	17
18	1.220	16
20	1.215	15
22	1.187	14
24	1.212	13
26	1.207	12
28	1.181	11
30	1.170	10
32	1.166	09
34	1.131	08
36	1.085	07
38	1.072	06
40	1.050	05
42	0.998	04
44	0.920	03
46	0.749	02
48	0.237	01

CORE AVERAGE RADIAL POWER DISTRIBUTION

RING #	1	2	3	4	5	6	7
REL PW	0.890	1.084	1.113	1.102	1.155	1.145	0.727

PAGE 2
CLINTON CYCLE 6 INSTRUMENT READINGS/STATUS SEQUENCE NO 23

Job Performance Measure (JPM)

CALIBRATED LPRM READINGS

47D		40.1	49.8	55.7	45.9	30.2
C		57.0	59.8	60.3	64.5	43.0
B		61.2	63.6	60.9	69.2	41.9
A		51.1	54.9	49.5	63.0	27.7
39D	35.4	51.3	58.4	61.1	57.5	46.0
C	55.8	62.7	60.3	59.6	66.5	67.9
B	60.0	65.2	60.7	57.0	66.7	70.2
A	52.7	61.1	50.4	44.4	54.7	63.8
31D	39.9	51.6	55.8	56.0C	55.7	48.5
C	63.7	71.1	68.3	63.1	72.6P	70.4
B	69.6	71.2	66.7	59.2	72.9	73.4
A	67.6M	69.0	61.1	45.4	71.1	71.8
23D	40.0	54.3	58.1	57.9	59.5	48.0
C	62.2	67.3D	63.7	59.2	66.8	69.0
B	67.1	67.1	61.4	56.9	66.6	71.1
A	66.5	58.6	48.7	44.2	55.6	66.1
15D	28.5	46.2	55.5	57.2	0.0	39.4
C	42.4	63.6	62.8	59.1	65.4	59.1
B	43.2	68.6	61.9	57.4	67.6	62.2
A	0.0	61.7	49.9	44.3	64.3	50.4
07D		29.1	39.3	40.7	36.6	
C		41.4	58.6	56.6	54.5	
B		42.3	64.8	61.8	58.3	
A		31.2	57.2	55.6	48.4	
	06	14	22	30	38	46

today-2xxx xx:xx CALCULATED
today-2xxx xx:xx PRINTED

CASE ID FMLD1950708205855
LPRM SHAPE - FULL CORE

OF TIPS REJECTED: 1

FAILED SENSORS:
LPRM (2 SIGNAL FAILED)
615A 3815D
LPRM (0 PANACEA REJECTED)
OTHER SENSORS (0 TOTAL)
SUB RODS
NONE

T = TIP RUN RECOMMENDED
C = MFLCPR LOCATION
M = MAPRAT LOCATION
D = MFLPD LOCATION
P = PCRAT LOCATION
* = MULTIPLE LIMIT

CORE SUMMARY

CORE POWER	99.9%	CALC SUB FLOW	91.3%	DP MEAS PSI	15.52
CORE FLOW	89.8%	OPER SUB FLOW	-1.2%	DP CALC PSI	20.52
LOAD LINE	107.2%	FLOW BASIS	MEAS	FEEDWTR FLOW MLB/HR	12.35

APRM CALIBRATION

	A	B	C	D
READING	100.4	100.6	100.2	100.2
AGAF	0.994	0.992	0.997	0.997

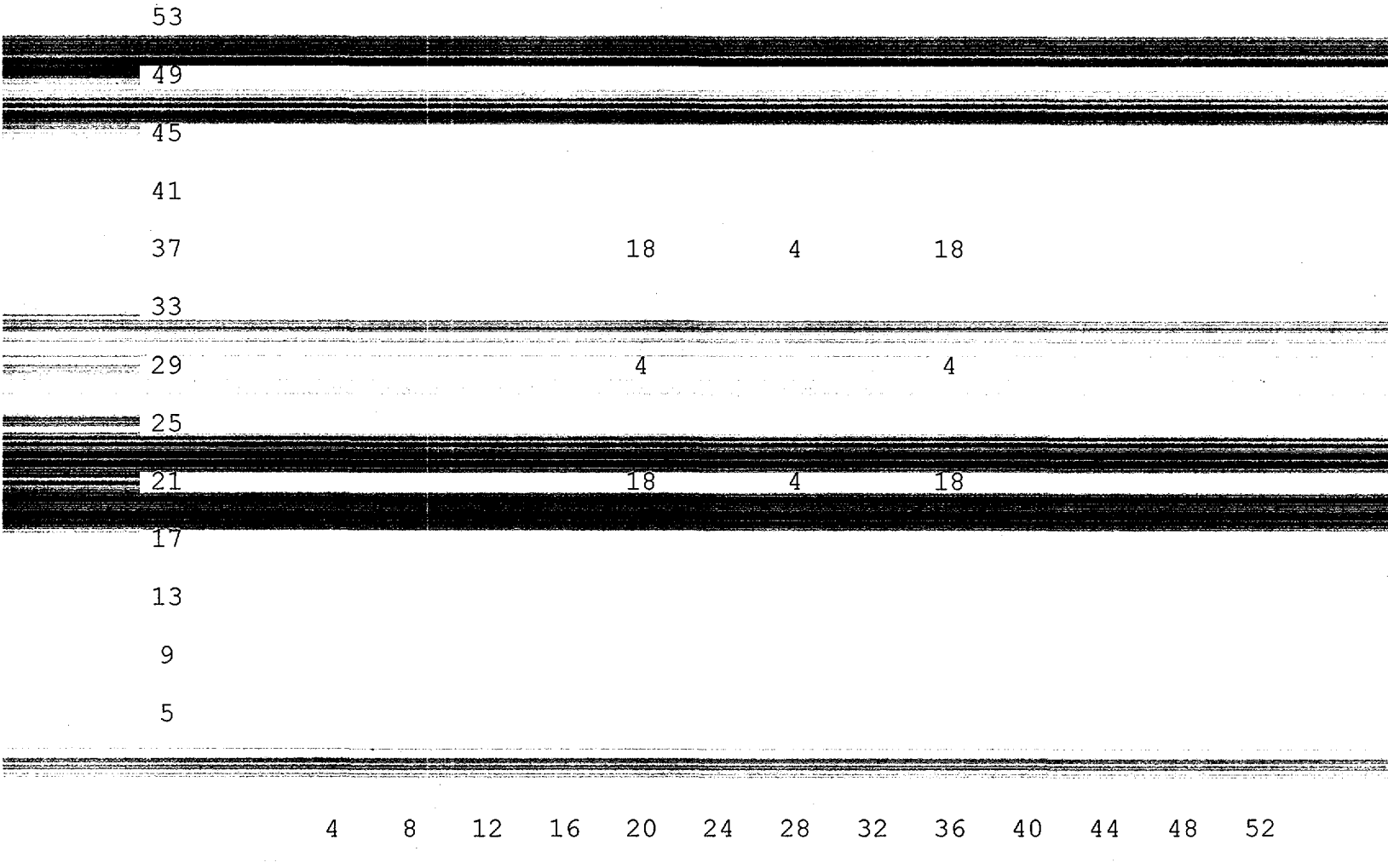
TIP RUNS RECOMMENDED
STRINGS: NONE

lastpage

Job Performance Measure (JPM)

UNIT 1, PAGE 1 OF 1 **Initial positions**

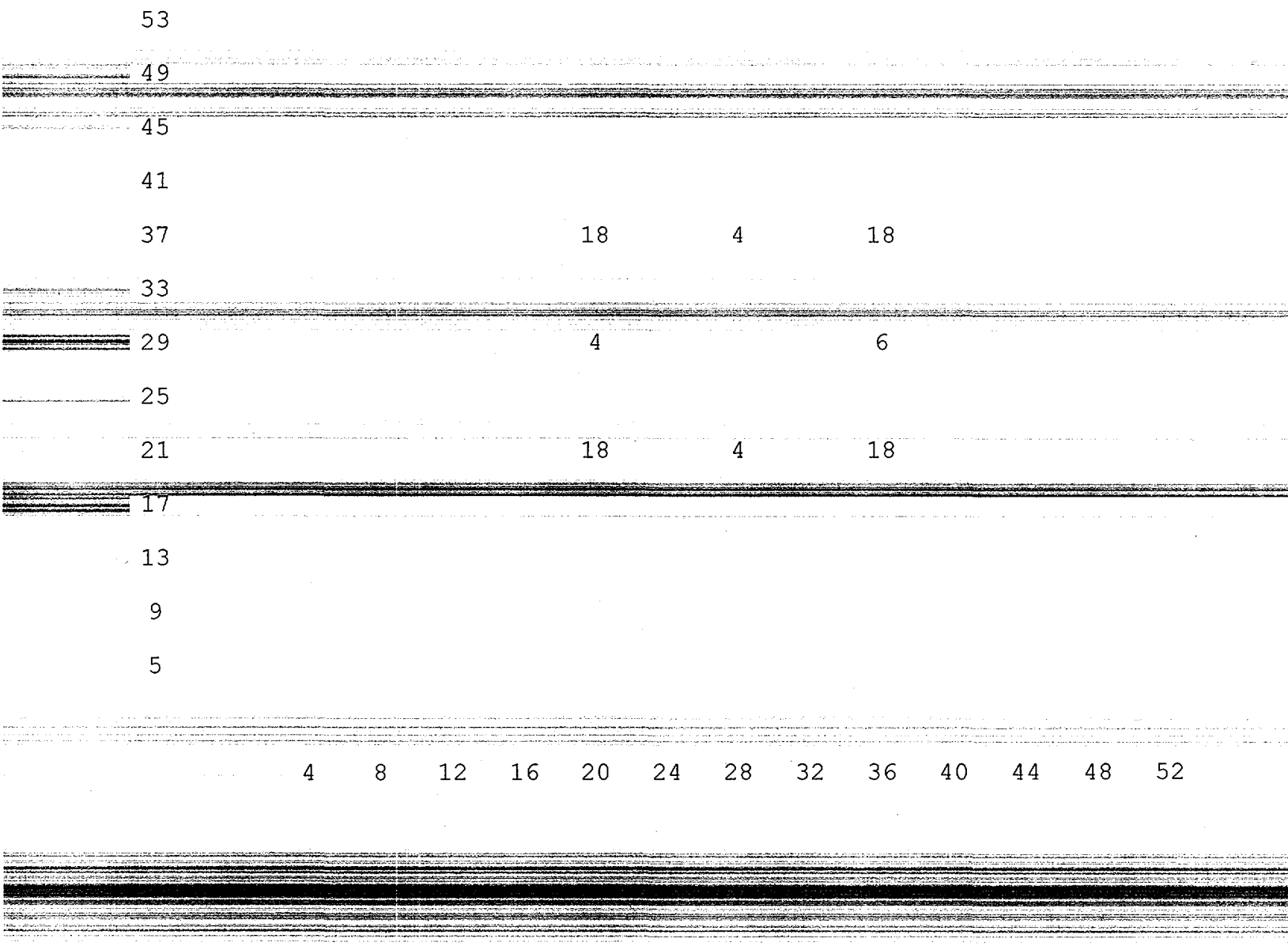
OD-7, CONTROL ROD NOTCH POSITIONS, NEW SCAN OPTION 4



Job Performance Measure (JPM)

UNIT 1, PAGE 1 OF 1 **Final Positions**

OD-7, CONTROL ROD NOTCH POSITIONS, NEW SCAN OPTION 4



Job Performance Measure (JPM)

UNIT 1, PAGE 1 OF 1 **Final Positions**

OD-7, CONTROL ROD NOTCH POSITIONS, NEW SCAN OPTION 2

53				48	48	48	48	48	48	48			
49			48	48	48	48	48	48	48	48	48		
45		48	48	48	48	48	48	48	48	48	48	48	
41	48	48	48	48	48	48	48	48	48	48	48	48	48
37	48	48	48	48	18	48	4	48	18	48	48	48	48
33	48	48	48	48	48	48	48	48	48	48	48	48	48
29	48	48	48	48	4	48	48	48	6	48	48	48	48
25	48	48	48	48	48	48	48	48	48	48	48	48	48
21	48	48	48	48	18	48	4	48	18	48	48	48	48
17	48	48	48	48	48	48	48	48	48	48	48	48	48
13		48	48	48	48	48	48	48	48	48	48	48	
9			48	48	48	48	48	48	48	48	48		
5				48	48	48	48	48	48	48			
	4	8	12	16	20	24	28	32	36	40	44	48	52

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.3.3

Revision Number: 00

Date:4/16/02

Developed By:	**Paul M. Higginbotham**	**4/16/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5//6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/6/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/23/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.3.3 **REVISION: 00**

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

CLINTON POWER STATION
SYSTEM JPM

JPM NUMBER: SRO A.3.3 **REVISION: 00**

Operator's Name:_____
Job Title: ■ SRO

JPM Title: Mechanical Vacuum Pump is Directed to be Secured on High Radiation Signal in HVAC Stack.
JPM Number: SRO A.3.3
Revision Number: 00
Task Number and Title: Ability to control radiation releases

K/A Number 2.3.11 Importance SRO 3.2

Suggested Testing Environment: With the cues any, but can be setup on the Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ❑ Yes ■ No

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

References:

CPS No. 4979.01, Abnormal Release of Airborne Radioactivity, Rev. 8
CPS No. 5140.41, AR/PR Annunciator-HVAC Exhaust PRM #1, Rev. 0
CPS No. 3315.03, Radiation Monitoring (AR/PR), Rev. 1

JPM NUMBER: SRO A.3.3 **REVISION: 00**

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: SRO A.3.3 **REVISION: 00**

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. If using the Simulator, initialize in a Startup IC with a Mechanical Vacuum Pump in service. Ramp HVAC Stack #1, Ch 1 PRM to a value that places the channel in High alarm status.
2. Shutdown the AR/PR history files

TASK STANDARDS:
Directs to secure all operating Mechanical Vacuum Pumps.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:
None

PROCEDURAL/REFERENCES:
CPS No. 4979.01, Abnormal Release of Airborne Radioactivity
CPS No. 5140.41, AR/PR Annunciator-HVAC Exhaust PRM #1
CPS No. 3315.03, Radiation Monitoring (AR/PR)

EVALUATOR INSTRUCTIONS:
Any amplifying cues are provided within the JPM steps.
Simulator setting provide the simulator cue:
Take the Simulator out of FREEZE after the examinee acknowledges the Initiating Cue.
Other setting provide the other cue

INITIAL CONDITIONS AND INITIATING CUE:
Cue for a non-simulator setting:
1. You are the Control Room Supervisor., a Startup is in progress.
2. The Mechanical Vacuum Pump is being used to draw the initial vacuum.
3. The following conditions exist:
   - 5140.41, HVAC Exhaust PRM #1 – 0RIX-PR001 Ch. 1 Alert and High Alarm is energized
   - EZTrend graph shows trending up to the Alert and High alarms over the last hour. ARP directs entry to CPS 4979.01, Abnormal Release of Airborne Radioactivity.

Respond to these conditions.

Cue for a simulator setting:
- You are the Control Room Supervisor, A Startup is in progress
- 5140.41, HVAC Exhaust PRM #1 – 0RIX-PR001 Ch. 1 Alert and High Alarm is energized, EZTrend graph shows trending up to the Alert and High alarms over the last hour.. ARP directs entry to CPS 4979.01, Abnormal Release of Airborne Radioactivity.

Respond to these conditions

JPM NUMBER: SRO A.3.3 **REVISION: 00**

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

Step 1 Enter CPS No. 4979.01, Abnormal Release of Airborne Radioactivity.

Standard Examinee enters CPS No. 4979.01.

Comments

SAT UNSAT Comment Number

Step 2 Enter AR/PR Action Table 2.

Standard Examinee enters AR/PR Action Table 2.

Comments

SAT UNSAT Comment Number

***Step 3** **Directs the Mechanical Vacuum pumps to be stopped**

Standard Examinee directs the mechanical vacuum pump to be stopped

Comments

SAT UNSAT Comment Number

TERMINATING CUES:

The CRS has directed securing the Mechanical Vacuum Pump.

The JPM is complete.

STOP TIME: _____

INITIATING CUE

1. You are the Control Room Supervisor. A Startup is in progress.
2. The Mechanical Vacuum Pump is being used to draw the initial vacuum.
3. The following conditions exist:
   - 5140.41, HVAC Exhaust PRM #1 – 0RIX-PR001 Ch. 1 Alert and High Alarm is energized
   - EZTrend graph shows trending up to the Alert and High alarms over the last hour. ARP directs entry to CPS 4979.01, Abnormal Release of Airborne Radioactivity.

Respond to these conditions.

INITIATING CUE
Simulator Setting

- You are the Control Room Supervisor. A Startup is in progress.
- 5140.41, HVAC Exhaust PRM #1 – 0RIX-PR001 Ch. 1 Alert and High Alarm is energized, EZTrend graph shows trending up to the Alert and High alarms over the last hour.. ARP directs entry to CPS 4979.01, Abnormal Release of Airborne Radioactivity.

Respond to these conditions

lastpage

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

JPM Number: SRO A.4.3

Revision Number: 00

Date:4/2/02

Developed By:	**Mark Otten**	**4/2/02**
	Instructor	**Date**
Validated By:	**B. Price**	**5/6/02**
	SME or Instructor	**Date**
Review By:	**P. O'Brien**	**5/10/02**
	Operations Representative	**Date**
Approved By:	**B. Price**	**5/23/02**
	Training Department	**Date**

NRC SUBMITTAL COPY

JPM NUMBER: SRO A.4.3 **REVISION: 00**

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

JPM NUMBER: SRO A.4.3 **REVISION: 00**

Operator's Name:_____
Job Title: ■ SRO

JPM Title:Determine a PAR
JPM Number:SRO A.4.3
Revision Number:00
Task Number and Title: Knowledge of emergency plan protective action recommendations

K/A Number 2.4.44 Importance SRO 4.0

Suggested Testing Environment: Any location with same references as the Simulator

Actual Testing Environment: ❑ Simulator ❑ Plant ❑ Control Room

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

Time Critical: ■ Yes ❑ No

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

References:

EP-AA-111, EMERGENCY CLASSIFICATION AND PROTECTIVE ACTION RECOMMENDATIONS

Radiological Emergency Plan Annex for Clinton Station

JPM NUMBER: SRO A.4.3 **REVISION: 00**

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: SRO A.4.3 **REVISION: 00**

READ TO THE OPERATOR

I will explain the initial conditions, which step(s) to simulate or discuss, and provide the initiating cues. When you complete the task successfully, the objective of this Job Performance Measure will be satisfied.
No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur.

SIMULATOR SET-UP CONDITIONS:

None

TASK STANDARDS:

Determine the action is to Evacuate 5 Mile Radius & 10 Miles Downwind (Subareas 1, 4, and 5)

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:
None
PROCEDURAL/REFERENCES:

EP-AA-111, EMERGENCY CLASSIFICATION AND PROTECTIVE ACTION RECOMMENDATIONS

Radiological Emergency Plan Annex for Clinton Station

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS AND INITIATING CUE:

1. A General Emergency has just been declared.
2. Containment Temperature is 130 °F, pressure risen to 2.2 psig, steady
3. Reactor Water level is –109 inches.
4. Radiation levels in the containment are 13860 R/hr stable.
5. RWCU Pump Room A is 217°F and rising
6. The wind direction is 321°
7. You are to determine the Protective Action Recommendations.

START TIME: _____

JPM NUMBER: SRO A.4.3 **REVISION: 00**

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

Step 1	Evaluates Fission Product Barrier Matrix
Standard	Fission Product Barrier Matrix to evaluate Fission Product Barrier Status
Comments	

SAT UNSAT Comment Number

Step 2	Determine that a Loss of RCS Barrier has occurred. Determine that a Loss of Fuel Clad Barrier has occurred. Determine that a Loss of Containment Barrier has occurred.
Standard	Examinee determines: Loss of RCS Barrier, Loss of Fuel Clad Barrier, and Loss of Containment Barrier has occurred.
Comments	

SAT UNSAT Comment Number

*Step 3	**Determine the action is to Evacuate 5 Mile Radius & 10 Miles Downwind**
Standard	Examinee determines the action is to evacuate a 5 mile radius and 10 miles downwind (Subareas 1, 4, and 5).
Comments	

SAT UNSAT Comment Number

TERMINATING CUES:

The JPM is complete.

STOP TIME: _____

Verify elapsed time meets the time critical requirement

INITIATING CUE

1. A General Emergency has just been declared.
2. Containment Temperature is 130 °F, pressure risen to 2.2 psig, steady
3. Reactor Water level is –109 inches.
4. Radiation levels in the containment are 13860 R/hr stable.
5. RWCU Pump Room A is 217°F and rising
6. The wind direction is 321°
7. You are to determine the Protective Action Recommendations.