Facility: Clinton Date of Examination: 08/22/2011

Examination Level: RO ☒ SRO ☐ Operating Test Number: 2011-301

Administrative Topic (See Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R,D	Complete an SRV Actuation Report JPM 407 2.1.18/3.6
Conduct of Operations	S,D	Perform Offsite Source Power Verification JPM 441 2.1.31/4.6
Equipment Control	S,N	Print Reading / Tag out Verification JPM 442 2.2.41/3.5
Radiation Control	R,D,P	Read Survey Map JPM 410 2.3.7/3.5
Emergency Procedures/Plan		

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

* Type Codes & Criteria:
(C)ontrol room, (S)imulator, or Class(R)oom
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes)
(N)ew or (M)odified from bank (≥ 1)
(P)revious 2 exams (≤ 1; randomly selected)

Facility: Clinton Date of Examination: 08/22/2011

Examination Level: RO ☐ SRO ☒ Operating Test Number: 2011-301

Administrative Topic (See Note)	Type Code*	Describe activity to be performed
Conduct of Operations	R,D,P	Verify Conditions are met to Enter Mode 2 JPM 113 2.1.23/4.4
Conduct of Operations	R,D	Review a Completed SRV Actuation Report JPM 444 2.1.32/4.0
Equipment Control	S,N	Print Reading / Tagout Verification JPM 442 2.2.41/3.9
Radiation Control	R,N	Authorize an Emergency Dose for a Life Saving Operation JPM 450 2.3.4/3.7
Emergency Procedures/Plan	R,N	Activate the Emergency Response Organization – Using The Backup Automated Call Out System JPM 446 2.4.38/4.4

NOTE: All items (5 total) are required for SROs. RO applicants require only 4 items unless they are retaking only the administrative topics, when 5 are required.

* Type Codes & Criteria:
(C)ontrol room, (S)imulator, or Class(R)oom
(D)irect from bank (≤ 3 for ROs; ≤ 4 for SROs & RO retakes)
(N)ew or (M)odified from bank (≥ 1)
(P)revious 2 exams (≤ 1; randomly selected)

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Complete an SRV Actuation Report

JPM Number: JPM407

Revision Number: 01

Date: 02/22/2011

Developed By:	**T. Pickley**	**02/22/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

_____ 1. Task description and number, JPM description and number areidentified.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Description
0	New JPM. Previously 3831.0101. Upgraded to new template.
1	Updated for procedure revision.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

- SRV actuation report is correctly filled out and the SRV has been identified as leaking.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST R 29b
- CPS 3831.01, SAFETY RELIEF VALVE REPORT R 6a

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

Provide the operator with the following:

- CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST R 29b
- CPS 9056.02C001, SAFETY/RELIEF VALVE MANUAL ACTUATION CHECKLIST R 28
- CPS 3831.01, SAFETY RELIEF VALVE REPORT R 6a
- CPS 3831.01D002, ACTUATION LOG R 6
- CPS 3831.01F001, ACTUATION LOG R 4
- DCS Display 6D-04
- DCS Display D05AD1
- DCS Display DD5BD3
- SRV Tailpipe temperature graph

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are the B RO.
The plant is operating at 80% power.
CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST was performed on B21-F047A the previous shift at steady state power.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

You are to complete CPS 3831.01, SAFETY RELIEF VALVE REPORT for B21-F047A.

The CRS has marked the appropriate blocks as 'N/A' on 3831.01D002.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

8.1 Fill in block 302 of the CPS No. 3831.01D002, ACTUATION LOG.

Standard: B21-F047A

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.1 Fill in block 303 of the CPS No. 3831.01D002, ACTUATION LOG.

Standard: Notes that block 303 is already filled in.

Cue:

Comments Already filled in.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1 Fill in block 304 of the CPS No. 3831.01D002, ACTUATION LOG.

Standard: Notes that block 304 is already filled in.

Cue:

Comments Already filled in.

SAT ☐ UNSAT ☐ Comment Number _____

***8.1 Fill in block 305 of the CPS No. 3831.01D002, ACTUATION LOG.**

Standard: B

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8.1 Fill in block 306 of the CPS No. 3831.01D002, ACTUATION LOG.**

Standard: C

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.1** **Fill in block 307 of the CPS No. 3831.01D002, ACTUATION LOG.**

Standard: E

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.1 Fill in block 308 of the CPS No. 3831.01D002, ACTUATION LOG.

Standard: 80

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8.1** **Fill in block 309 of the CPS No. 3831.01D002, ACTUATION LOG.**

Standard: **Determines that the tail pipe has not returned to normal or that the SRV is leaking. Block may be left BLANK or N/A'ed.**

Cue:

Comments If the candidate determines that the tail pipe has not returned to normal or that the SRV is leaking, as the CRS you may instruct the candidate to leave the block blank if questioned.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1	Fill in block 310 of the CPS No. 3831.01D002, ACTUATION LOG.
Standard:	Notes that block 310 is already filled in.
Cue:	
Comments	Already filled in
	SAT ☐ UNSAT ☐ Comment Number _____

8.1	Fill in block 311 of the CPS No. 3831.01D002, ACTUATION LOG.
Standard:	1013
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.2	Fill in block 312 of the CPS No. 3831.01D002 ACTUATION LOG, if available at the time of reporting or enter "not available" when completing the log. Additional data may be entered later for cross reference.
Standard:	1013
Cue:	If requested from the MCR log, the reseat pressure was 1013 psig.
Comments	Value may be derived from material provided, requested from the MCR log or considered “not available”.
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	8.2	Fill in block 313 of the CPS No. 3831.01D002 ACTUATION LOG, if available at the time of reporting or enter "not available" when completing the log. Additional data may be entered later for cross reference.
Standard:		N/A or ≈1 Minute
Cue:		If requested from the MCR log, the SRV was open for 1 minute.
Comments		Value may be derived from material provided, requested from the MCR log or considered "not available".
		SAT ☐ UNSAT ☐ Comment Number _____

	8.2	Fill in block 314 of the CPS No. 3831.01D002 ACTUATION LOG, if available at the time of reporting or enter "not available" when completing the log. Additional data may be entered later for cross reference.
Standard:		A, B, E or N/A
Cue:		
Comments		If asked, reply no additional information is available at this time.
		SAT ☐ UNSAT ☐ Comment Number _____

	8.2	Fill in block 315 of the CPS No. 3831.01D002 ACTUATION LOG, if available at the time of reporting or enter "not available" when completing the log. Additional data may be entered later for cross reference.
Standard:		Notes that block 315 is already filled in.
Cue:		
Comments		Already filled in
		SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.3	If a COMMENT SHEET, CPS No. 3831.01F001, is completed for this log entry, indicate "YES" in block 316, if a comment sheet was not completed, indicate "NO" in block 316.
Standard:	Yes or No
Cue:	
Comments	If yes then a comment sheet should be completed (3831.01F001)
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The SRV actuation log is complete.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: JPM407, Complete an SRV Actuation Report

JPM Number: JPM407 Revision Number: 01

Task Number and Title: 383101.01, Complete Control Room actions to document data on failures and actuation's of the Safety Relief Valves in the Main Steam System and to generate reports required by the Nuclear Regulatory Commission

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.1.18	3.6	3.8

Suggested Testing Environment: Any

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 18 minutes Actual Time Used: _____ minutes

References:

- CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST R 29b
- CPS 3831.01, SAFETY RELIEF VALVE REPORT R 6a

EVALUATION SUMMARY:

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

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

Comments: _____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

You are the B RO.
The plant is operating at 80% power.
CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST was performed on B21-F047A the previous shift at steady state power.

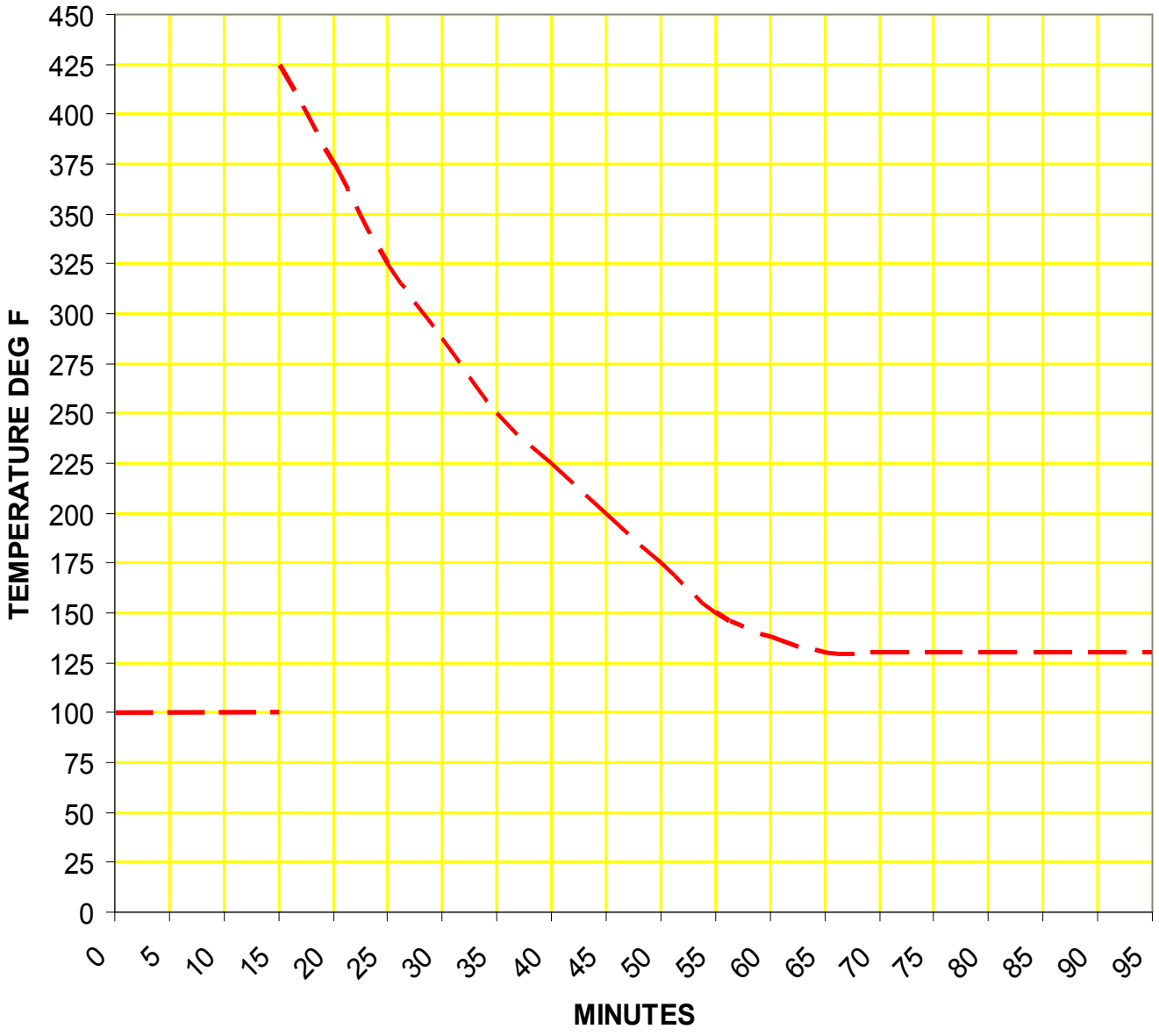
INITIATING CUE:

CAUTION

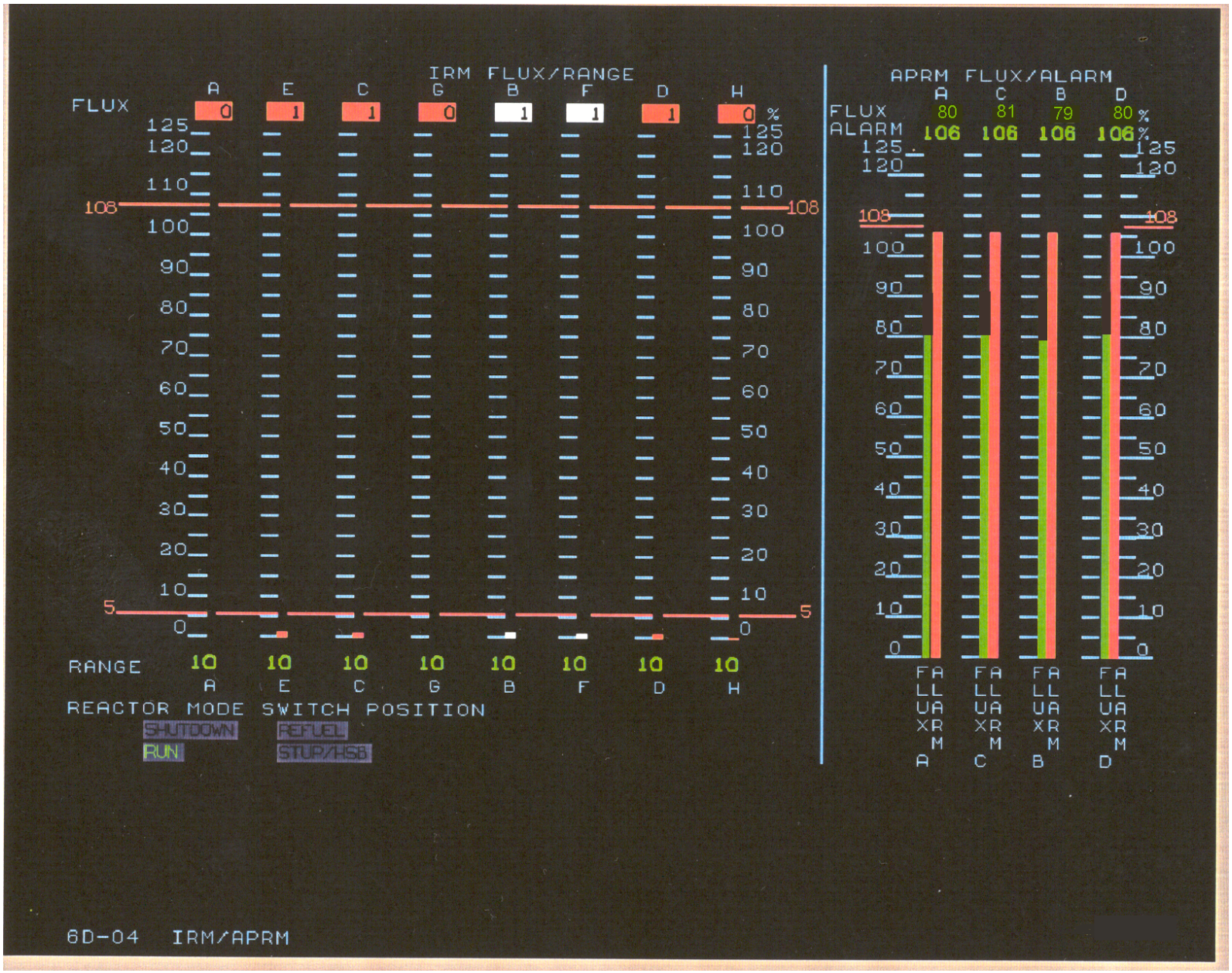
- All pre-job briefings are completed.

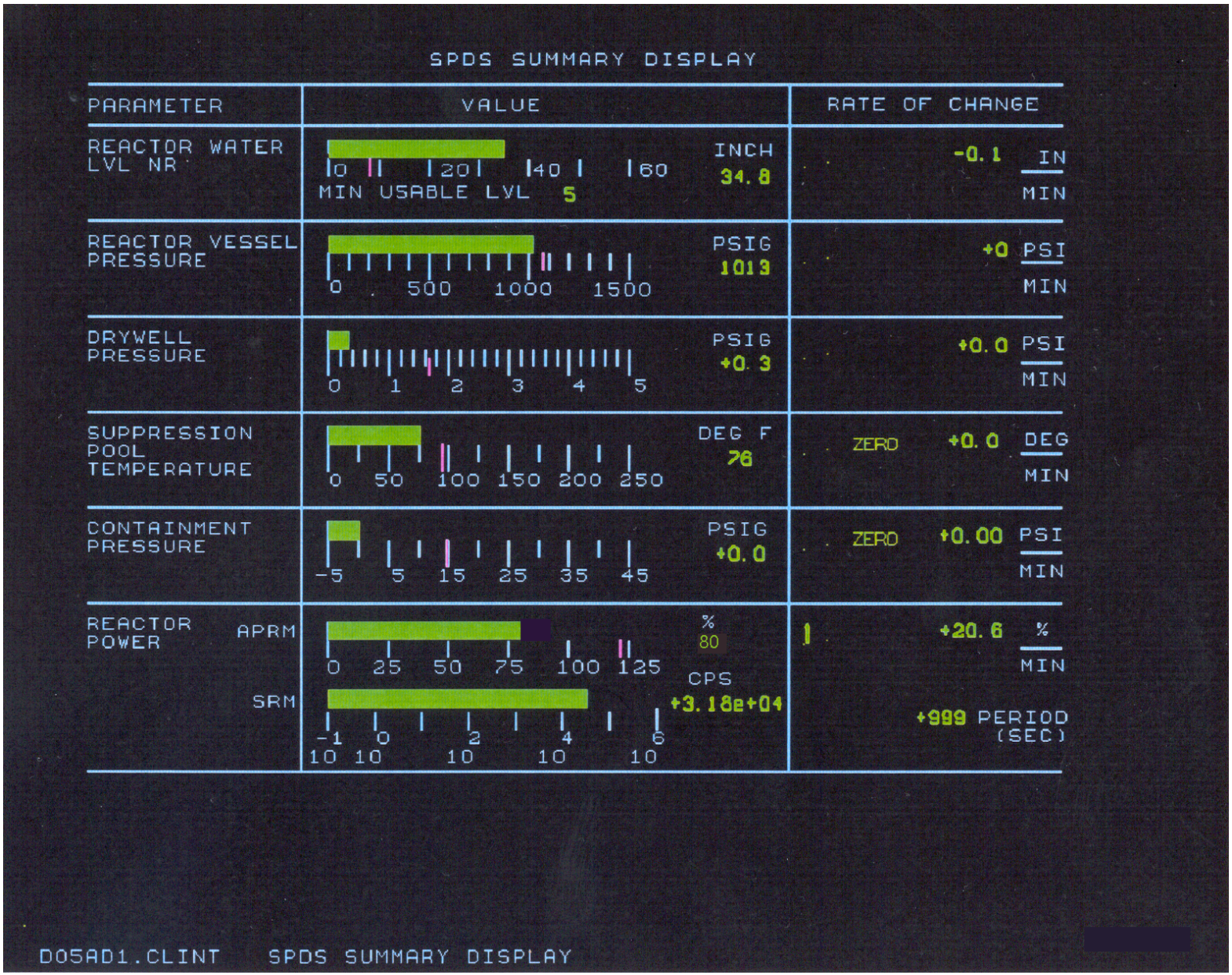
You are to complete CPS 3831.01, SAFETY RELIEF VALVE REPORT for B21-F047A.

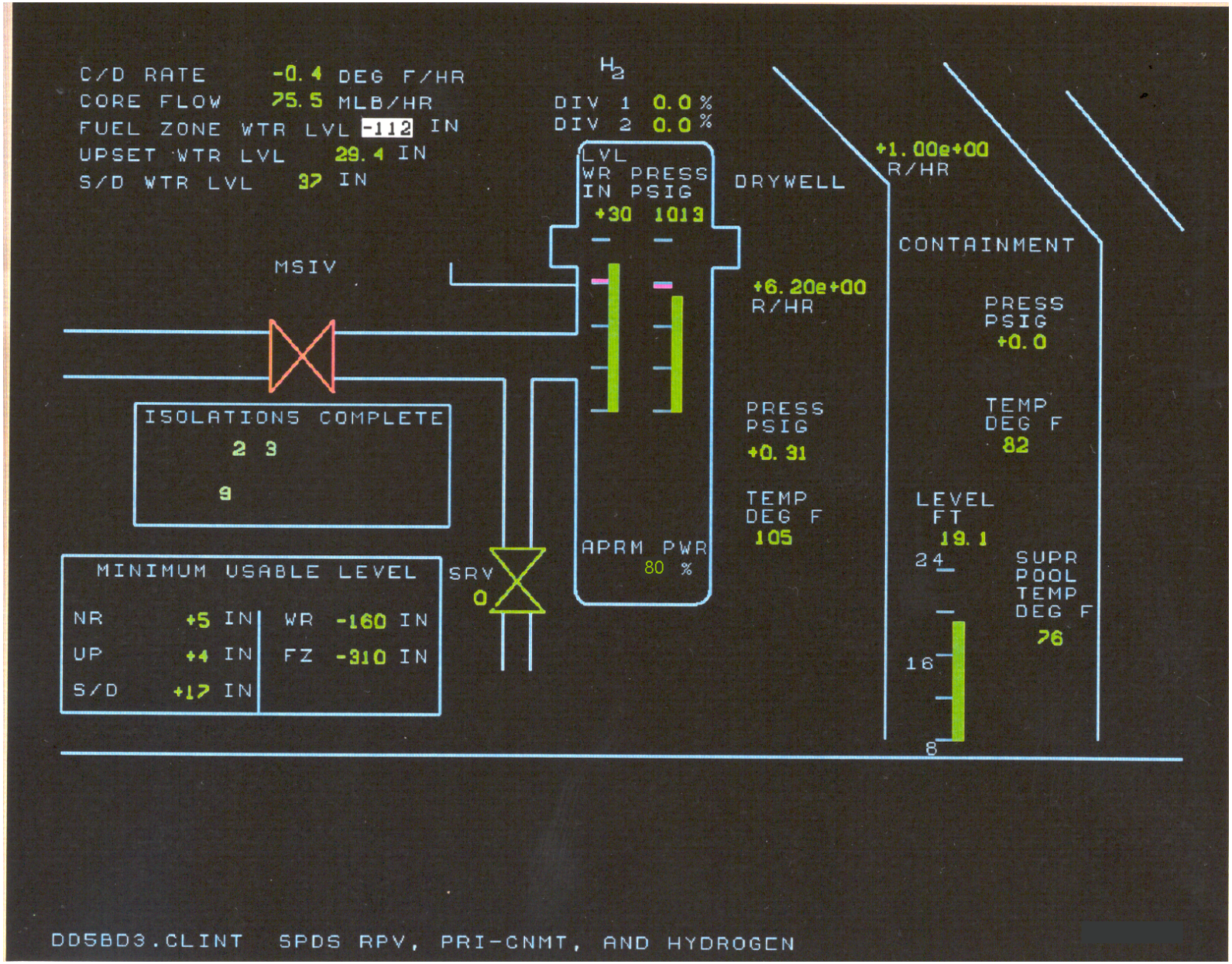
The CRS has marked the appropriate blocks as 'N/A' on 3831.01D002.


TEMPERATURE DEG F
450
425
400
375
350
325
300
275
250
225
200
175
150
125
100
75
50
25
0
0
5
10
15
20
25
30
35
40
45
50
55
60
65
70
75
80
85
90
95
MINUTES

Attachments




SPDS SUMMARY DISPLAY
PARAMETER
VALUE
RATE OF CHANGE
REACTOR WATER LVL NR
0 20 40 60
INCH
34.8
MIN USABLE LVL 5
-0.1 IN
MIN
REACTOR VESSEL PRESSURE
0 500 1000 1500
PSIG
1013
+0 PSI
MIN
DRYWELL PRESSURE
0 1 2 3 4 5
PSIG
+0.3
+0.0 PSI
MIN
SUPPRESSION POOL TEMPERATURE
0 50 100 150 200 250
DEG F
76
ZERO +0.0 DEG
MIN
CONTAINMENT PRESSURE
-5 5 15 25 35 45
PSIG
+0.0
ZERO +0.00 PSI
MIN
REACTOR POWER
APRM
0 25 50 75 100 125
%
80
+20.6 %
MIN
SRM
-1 0 2 4 6
10 10 10 10 10
CPS
+3.18E+04
+999 PERIOD (SEC)
D05AD1.CLINT SPDS SUMMARY DISPLAY


C/D RATE -0.4 DEG F/HR
CORE FLOW 75.5 MLB/HR
FUEL ZONE WTR LVL -112 IN
UPSET WTR LVL 29.4 IN
S/D WTR LVL 37 IN
H2
DIV 1 0.0 %
DIV 2 0.0 %
LVL
WR PRESS
IN PSIG
+30 1013
DRYWELL
+1.00e+00
R/HR
CONTAINMENT
MSIV
+6.20e+00
R/HR
PRESS
PSIG
+0.0
ISOLATIONS COMPLETE
2 3
9
PRESS
PSIG
+0.31
TEMP
DEG F
82
TEMP
DEG F
105
LEVEL
FT
19.1
24
16
8
SUPR
POOL
TEMP
DEG F
76
APRM PWR
80 %
SRV
0
MINIMUM USABLE LEVEL
NR +5 IN
UP +4 IN
S/D +17 IN
WR -160 IN
FZ -310 IN
DD5BD3.CLINT SPDS RPV, PRI-CNMT, AND HYDROGEN

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Perform Offsite Source Power Verification

JPM Number: 441

Revision Number: 01

Date: 05/10/2011

Developed By:	**Tom Pickley**	**05/10/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	04/08/02	New JPM number (old number 9082)
01	05/10/11	Added overrides of computer points

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. Initialize the Simulator to any IC with both Off-site source and all DGs operable and place the simulator in RUN.

2. Run Lesson Plan JPM441 which will activate

   APBA539SUBSV = -1.0
   APBA539SUBSF = True
   SYDA501SUBSV = -1.0
   SYDA501SUBSF = True

3. Verify:

   - 1A1, 1B1 and 1C1 are on the Main power source.
   - Make sure the simulator doesn't have any annunciators OOS that are needed in performance of CPS 9082.01.

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

4. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- CPS 9082.01, OFFSITE SOURCE POWER VERIFICATION, Revision 39b, Section 8.1, 8.2, and 8.3 are complete in accordance with the procedure.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 9082.01, OFFSITE SOURCE POWER VERIFICATION, Revision 39b

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- Provide the operator with the following:
  - CPS 9082.01, OFFSITE SOURCE POWER VERIFICATION

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

The plant is operating at full power.
The Normal Frequency (7-day) performance of CPS 9082.01, Offsite Source Power Verification, is due to be performed this shift.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Perform CPS 9082.01, Offsite Source Power Verification.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS 9082.01, Offsite Source Power Verification
Section 8.1 – 138KV Offsite Source Operability

8.1.1	Log status of Auxiliary Steam Boilers: ☐ None in service ☐ Aux Boiler in service: #1 ____ or # 2 ____ ☞ 138KV is INOPERABLE if 2 Aux Boilers are in-service.
Standard	Determines the number of Auxiliary Boilers that are in service.
CUE	There are no Auxiliary Boilers in service.
Comments	Candidate selects "None in service". SAT ☐ UNSAT ☐ Comment Number _____

8.1.2	At 1H13-P870, verify ERAT SVC in-service and able to function as follows: ☞ Contact NSED as needed for Engineering Evaluations which support ERAT SVC ability to properly function.
Standard	No action is required. The examinee may contact NSED for applicable Engineering Evaluations.
CUE	If requested, respond that there are no Engineering Evaluations applicable to the ability of the ERAT SVC to function properly.
Comments	There is no action required with this note. The examinee may read, acknowledge the note and continue on. The cue is provided as a contingency. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.2 (continued)	☞	If annunciator(s) 5011-8E/8F/8G is Out of Service, a walkdown of the ERAT SVC building panels may be used to verify no condition exists which would result in the ERAT SVC not being able to function. If walkdown used in place of annunciator verification, initial the step with a NOTE in the Comments section.
Standard		No action is required. The examinee may verify no OOS stickers on Annunciator windows in conjunction with the following steps to determine 5011-8E/8F/8G are not out of service.
CUE		If requested, respond that there are no OOS annunciators pending.
Comments		There is no action required with this note. The examinee may read, acknowledge the note and continue on. The cue is provided as a contingency.
		SAT ☐ UNSAT ☐ Comment Number _____

8.1.2.1)	Annunciator 5011-8E, ERAT SVC TRIP is deenergized.
Standard	Verifies annunciator 5011-8E, ERAT SVC TRIP is deenergized.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.1.2.2)	Annunciator 5011-8F, ERAT SVC TROUBLE is deenergized, or if energized, that the alarm is not due to a cause which would result in the ERAT SVC not being able to function.
Standard	Verifies annunciator 5011-8F, ERAT SVC TROUBLE is deenergized.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.2.3)	Annunciator 5011-8G, ERAT SVC FROZEN is deenergized, or if energized, that the alarm is not due to a cause which would result in the ERAT SVC not being able to function.
Standard	Verifies annunciator 5011-8G, ERAT SVC FROZEN is deenergized.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.1.2.4)**	**ERAT SVC Voltage 4084 - 4300V.** _____ **V**
Standard	Records ERAT SVC voltage. Determines ERAT SVC Voltage is within the required range.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.1.2.5)	Review logs or From E-area Operator, ERAT-LTC Tap in MANUAL at Position 2L.
Standard	(From E-area daily rounds) ERAT-LTC Tap is in MANUAL at Position 2L.
CUE	Logged MANUAL at position 2L.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.3	At 1H13-P870, verify: 1) ERAT CIRCUIT SWITCHER, B018 is CLOSED. 2) DISC SW ET14 is OPEN. 3) DISC SW ET4 is CLOSED.
Standard	Verifies the three switches are in the required position.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.1.4**	**Complete the following voltage table:**	
	Preferred: 138KV Bus (AP-BA539)	_____ kV
Standard	Determines computer point AP-BA539 is bad (white) data.	
CUE		
Comments	The 138KV Bus (AP-BA539) computer point is Bad (white) Data so candidate is expected to use the ***Alternate 1*** method. SAT ☐ UNSAT ☐ Comment Number _____	

	Contacts EMD/IMD to use *Alternate* source 1.	_____ VDC
Standard	Records measured value and converts to KV by multiplying by 15.	
CUE	Measured value is 9.2 VDC	
Comments	If requested, Multimeter EIN was MM1234 with a Cal Due Date of 01/20/12. If ***Alternate* 2** method is selected, the measured value is 0.113 VAC. SAT ☐ UNSAT ☐ Comment Number _____	

	Verify voltage: 138KV Bus Voltage ≥ 129.72.	_____ Initial
Standard	Verifies recorded voltage is within the acceptable range.	
CUE		
Comments	Calculated value is 138 kV. SAT ☐ UNSAT ☐ Comment Number _____	

Clinton Power Station
Job Performance Measure (JPM)

CPS 9082.01, Offsite Source Power Verification
Section 8.2 – 345KV Offsite Source Operability

8.2.1	At 1H13-P870, verify RAT SVC in-service and able to function as follows: ☞ Contact NSED as needed for Engineering Evaluations which support RAT SVC ability to properly function.
Standard	No action is required. The examinee may contact NSED for applicable Engineering Evaluations.
CUE	If requested, respond that there are no Engineering Evaluations applicable to the ability of the RAT SVC to function properly.
Comments	There is no action required with this note. The examinee may read, acknowledge the note and continue on. The cue is provided as a contingency.
	SAT ☐ UNSAT ☐ Comment Number _____

8.2.1 (continued)	☞ If annunciator(s) 5011-7E/7F/7G is Out of Service, a walkdown of the RAT SVC building panels may be used to verify no condition exists which would result in the RAT SVC not being able to function. If walkdown used in place of annunciator verification, initial the step with a NOTE in the Comments section.
Standard	No action is required. The examinee may verify no OOS stickers on Annunciator windows in conjunction with the following steps to determine 5011-7E/7F/7G are not out of service.
CUE	If requested, respond that there are no OOS annunciators pending.
Comments	There is no action required with this note. The examinee may read, acknowledge the note and continue on. The cue is provided as a contingency.
	SAT ☐ UNSAT ☐ Comment Number _____

8.2.1.1)	Annunciator 5011-7E, RAT SVC TRIP is deenergized.
Standard	Verifies annunciator 5011-7E, RAT SVC TRIP is deenergized.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2.1.2)	Annunciator 5011-7F, RAT SVC TROUBLE is deenergized, or if energized, that the alarm is not due to a cause which would result in the RAT SVC not being able to function.
Standard	Verifies annunciator 5011-7F, RAT SVC TROUBLE is deenergized.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.2.1.3)	Annunciator 5011-7G, RAT SVC FROZEN is deenergized, or if energized, that the alarm is not due to a cause which would result in the RAT SVC not being able to function.
Standard	Verifies annunciator 5011-7G, RAT SVC FROZEN is deenergized.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.2.1.4)**	**RAT SVC Voltage 4084 - 4300V.** **_____ V**
Standard	Records RAT SVC voltage. Determines RAT SVC Voltage is within the required range.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.2.1.5)	Review logs or From E-area Operator, RAT B-LTC Tap in MANUAL at Position 5.
Standard	(From E-area daily rounds) RAT B-LTC Tap in MANUAL at Position 5.
CUE	Logged MANUAL at position 5.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2.2	At 1H13-P870, verify: 1) RAT 1 CIRCUIT SWITCHER, 4538 is CLOSED. 2) DISC SWITCH RT14 is CLOSED. 3) DISC SWITCH RT4 is OPEN.
Standard	Verifies the three switches are in the required position.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.2.3**	**Complete the following voltage table:**	
	Voltage source {mark one}: ***Preferred***, as long as the North and South Buses are connected: South Bus (SY-DA501 or Meter) ☐ OR ***Alternate 1*:** North Bus (SY-DA502 or Meter) ☐	_____ KV
Standard	Determines North and South Buses are connected and records 345 kV Bus voltage from the *Preferred* source (SY-DA501 or meter).	
CUE		
Comments	The South Bus computer point is Bad (white) Data so candidate is expected to use the Meter on P870 or ***Alternate 1***. If ***Alternate* 2** method is selected, the measured value is 115 MV DC. SAT ☐ UNSAT ☐ Comment Number _____	
	Verify voltage: 345KV Bus Voltage ≥ 327.40 KV.	_____ Initial
Standard	Verifies recorded voltage is within the acceptable range.	
CUE		
Comments	Meter reading is ~ 360 kV. SAT ☐ UNSAT ☐ Comment Number _____	

Clinton Power Station
Job Performance Measure (JPM)

CPS 9082.01, Offsite Source Power Verification
Section 8.3 – Divisional Bus Feeder Breaker Verification

***8.3.1.1.**	4160V Bus 1A1 Feeder Breaker Verification (1H13-P877) **Verify one of the following breakers is CLOSED, and the other one is in AUTO position**, or N/A if source is not required to be OPERABLE: Auto Closed 1) 4160V Bus 1A1 Mn Bkr (1AP07EK) ____ ____ _____ ☞ 345KV Source OPERABLE for Div 1 bus when step satisfied. 2) 4160V Bus 1A1 Res Bkr (1AP07EH) ____ ____ _____ ☞ 138KV Source OPERABLE for Div 1 bus when step satisfied.
Standard	Verifies and records 4160V Bus 1A1 Mn Bkr position-Closed. Verifies and records 4160V Bus 1A1 Res Bkr position-Auto.
CUE	
Comments	Closed breaker position may also be recorded as Auto & Closed. SAT ☐ UNSAT ☐ Comment Number _____

8.3.1.2.	Verify annunciator 5060-1D, NOT AVAILABLE 4160V BUS BREAKER is deenergized, or if energized, that the alarm cause is not due to a source which is required to be OPERABLE.
Standard	Verifies annunciator 5060-1D, NOT AVAILABLE 4160V BUS BREAKER is NOT out of service and is deenergized.
CUE	
Comments	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.3.2.1.**	4160V Bus 1B1 Feeder Breaker Verification (1H13-P877) **Verify one of the following breakers is CLOSED, and the other one is in AUTO position**, or N/A if source is not required to be OPERABLE: Auto Closed 1) 4160V Bus 1B1 Mn Bkr (1AP09EA) ____ ____ _____ ☞ 345KV Source OPERABLE for Div 2 bus when step satisfied. 2) 4160V Bus 1B1 Res Bkr (1AP09EC) ____ ____ _____ ☞ 138KV Source OPERABLE for Div 2 bus when step satisfied.
Standard	Verifies and records 4160V Bus 1B1 Mn Bkr position-closed. Verifies and records 4160V Bus 1B1 Res Bkr position-Auto.
CUE	
Comments	Closed breaker position may also be recorded as Auto & Closed. SAT ☐ UNSAT ☐ Comment Number _____

8.3.2.2.	Verify annunciator 5061-1D, NOT AVAILABLE 4160V BUS BREAKER is deenergized, or if energized, that the alarm cause is not due to a source which is required to be OPERABLE.
Standard	Verifies annunciator 5061-1D, NOT AVAILABLE 4160V BUS BREAKER is deenergized.
CUE	
Comments	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.3.3.1.**	4160V Bus 1C1 Feeder Breaker Verification (1H13-P601) **Verify one of the following breakers is CLOSED, and the other one is in AUTO position**, or N/A if source is not required to be OPERABLE: Auto Closed 1) 4160V Bus 1C1 Mn Bkr (1RT4C1) ____ ____ _____ ☞ 345KV Source OPERABLE for Div 3 bus when step satisfied. 2) 4160V Bus 1C1 Res Bkr (1ETR4C1) ____ ____ _____
Standard	Verifies and records 4160V Bus 1C1 Mn Bkr position-Closed. Verifies and records 4160V Bus 1C1 Res Bkr position-Auto.
CUE	
Comments	Closed breaker position may also be recorded as Auto & Closed. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.3.3.2.	Verify annunciator 5062-7B, HPCS NOT READY FOR AUTO START/BKR IN LOWER POS is deenergized, or if energized, that the alarm cause is not due to a source which is required to be OPERABLE.
Standard	Verifies annunciator 5062-7B, HPCS NOT READY FOR AUTO START/BKR IN LOWER POS is deenergized.
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.4.	Notify the SMngt of surveillance completion.
Standard	Signs and dates the surveillance. Notifies SMngt the surveillance is completed.
CUE	Acknowledge notification of surveillance completion.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

All required data has been recorded.
Shift Management has been notified of surveillance completion.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ RO ☐ SRO

JPM Title: Perform Offsite Source Power Verification

JPM Number: JPM441 Revision Number: 00

Task Number and Title: 908201.01Complete Control Room actions to perform the OFFSITE SOURCE POWER VERIFICATION

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.1.31	4.6	4.3

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 9082.01, OFFSITE SOURCE POWER VERIFICATION, Revision 39b

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

The plant is operating at full power.
The Normal Frequency (7-day) performance of CPS 9082.01, Offsite Source Power Verification, is due to be performed this shift.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Perform CPS 9082.01, Offsite Source Power Verification.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Print Reading/Tag out verification

JPM Number: JPM442

Revision Number: 00

Date: 04/25/2011

Developed By:	**W. D. Kiser**	**04/25/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	04/25/11	New JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- Applicant determines that two tags are incorrect and makes corrections to OP-AA-109-101.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- OP-AA-109-101, Clearance and Tagging Rev. 6 - Attachment 14 Part 1 and 2 (marked up).

PROCEDURAL/REFERENCES:

- OP-AA-109-101, Clearance and Tagging Rev. 6
- EO2-1RP099 Sheets 101 Rev. Q
- E02-0AP21 Sheet 001 Rev. AC
- CPS 3509.01, Instrument Power System (IP) Rev. 20b
- CPS 3509.01E001, Instrument Power System Elec Lineup Rev. 11c

EVALUATOR INSTRUCTIONS:

- Provide a copy to candidate :
  - OP-AA-109-101, Clearance and Tagging Rev. 6 - Attachment 14 Part 1 and 2 (marked up).
  - OP-AA-109-101, Clearance and Tagging Rev. 6
  - CPS 3509.01, Instrument Power System (IP) Rev. 20b
- Allow applicant access to reference prints and procedures (not already provided).
- The "ALT DETAIL FOR 1RP01E" on EO2-1RP099 Sheets 101 Rev. Q is not applicable and the candidate should be informed as soon as this print is accessed.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

The plant is at rated conditions and NSPS Div 1 REG ISO Transformer needs to be tagged out for repairs on Terminal Boards TB1 & TB2. Passport and EDMS are down.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Determine if the provided clearance order has adequate boundaries. If not adequate then suggest needed changes.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

***1)**	**Identifies 0AP54EB-5AL as the incorrect circuit breaker/bucket.**
Standard:	Determines that 0AP54EB-5AL is the incorrect circuit breaker/bucket and it should be 0AP54EB-5AR.
Cue:	Examinee may need to be told to complete the independent technical review.
Comments	The candidate may also choose to add 1RP01E/CB1- OFF to the clearance order in addition to or in place of 0AP54EB-5AR. Although 0AP54EB-5AR is normally used, 1RP01E/CB1 would provide an acceptable electrical boundary to the work being performed in place of 0AP54EB-5AR and therefore meet the intent of this critical step. If added in addition to 0AP54EB-5AR, 1RP01E/CB1 would be considered excessive but not constitute an UNSAT performance step. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***2)** **Identifies 1RP17J – MAINTENANCE BYPASS is in the wrong position.**

Standard: Determines that "ON" is the incorrect position and it should be in the "OFF" position.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

3) Verifies that 1RP01E/CB2 – ISO TRANSF OUTPUT BKR is in the correct position.

Standard: Determines that "OFF" is the correct position for 1RP01E/CB2 – ISO TRANSF OUTPUT BKR.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

NOTE:

The candidate may choose to add additional information tags for the Manual Bypass Switch or the inverter itself to maintain the inverter alignment or identify that alternate power (NSPS Div 1 REG ISO Transformer) is not available. These measures would be considered acceptable but not required.

TERMINATING CUES:

Applicant submits his attachment 14 parts one and two of OP-AA-109-101 noting the wrong breaker and switch position. Applicant recommends correct breaker and switch position changes.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Print Reading/Tag out verification

JPM Number: JPM442 Revision Number: 00

Task Number and Title: (0.13L) Read Mechanical and Electrical Prints

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.2.41	3.5	3.9

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: EO2-1RP099 Sheets 101 Rev. Q E02-0AP21 Sheet 001 Rev. AC
CPS 3509.01, Instrument Power System (IP) Rev. 20b
CPS 3509.01E001, Instrument Power System Elec Lineup Rev. 11c

EVALUATION SUMMARY:

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

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

Comments: _____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions:

The plant is at rated conditions and NSPS Div 1 REG ISO Transformer needs to be tagged out for repairs on Terminal Boards TB1 & TB2. Passport and EDMS are down.

Initiating Cue:

CAUTION

- All pre-job briefings are completed.

Determine if the provided clearance order has adequate boundaries. If not adequate then suggest needed changes.

Exelon SM
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CLINTON POWER STATION

Job Performance Measure

Read Survey Map

JPM Number: 410

Revision Number: 01

Date: 08/31/2010

Developed By:	**T. Pickley**	**05/25/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

_____ 1. Task description and number, JPM description and number areidentified.

_____ 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)

Clinton Power Station
Job Performance Measure (JPM)

Revision	Date	Description
00	08/31/10	New JPM.
01	05/25/11	Reformated

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. Administrative

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

2. Attachment 1 is the survey map.

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

4. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

- The evolution completed IAW RP-AA-203 EXPOSURE CONTROLS AND LIMITS Rev. 03.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Calculator

PROCEDURAL/REFERENCES:

- RP-AA-203 EXPOSURE CONTROLS AND LIMITS Rev. 03.

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

The plant is operating at 97%.

INITIATING CUE:

You are preparing to enter the RT 'B' Pump room to vent RT Pump from valves 1G33F010B and 1G33F011B.

You have been tasked with reviewing the survey map and answering the provided list of questions.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

***1) What is the highest contamination level in the HCA?**

Standard: 15K dpm/100 cm^2

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***2) What is the highest contact radiation level in the HCA?**

Standard: 270 mr/hr

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***3) What is the highest dose rate level in the HCA?**

Standard: 60 mr/hr

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***4) What is the estimated dose for venting RT pump 'B' if you are next to the vent valves for 4 minutes?**

Standard: ~ 4 mr

Cue:

Comments If asked, do not consider travel time.

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The candidate turns in the answer sheet.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Read Survey Map

JPM Number: JPM410 Revision Number: 00

Task Number and Title: 102405.01 Apply the administrative requirements of the ALARA program

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.3.7	3.5	3.6

Suggested Testing Environment: Classroom

Actual Testing Environment: ☐ Classroom ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: RP-AA-203 EXPOSURE CONTROLS AND LIMITS Rev. 03

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

The plant is operating at 97%.

Initiating Cue

You are preparing to enter the RT 'B' Pump room to vent RT Pump from valves 1G33F010B and 1G33F011B.

You have been tasked with reviewing the survey map and answering the provided list of questions.

What is the highest contamination level in the High Contamination Area (HCA)?	
What is the highest contact radiation level in the HCA?	
What is the highest general area dose rate level in the HCA?	
What is the estimated dose for venting RT pump 'B' if you are next to the vent valves for 4 minutes?	

Exelon SM
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CLINTON POWER STATION

Job Performance Measure

Verify Conditions are met to Enter Mode 2

JPM Number: JPM113

Revision Number: 01

Date: 05/10/2011

Developed By:	**Tom Pickley**	**05/10/11**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	02/25/09	Converted from old JPM
01	05/10/11	Updated procedure revisions

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

- Identify discrepancies requiring resolution prior to entering Mode 2.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 3001.01, Approach to Critical, Rev. 25b
- CPS 3001.01C001, Preparation for Startup Checklist, Rev. 18a
- CPS 3001.01C002, Mode 2 Checklist, Rev. 16c

EVALUATOR INSTRUCTIONS:

- Present the completed copy of CPS 3001.01, CPS 3001.01C001, and CPS 3001.01C002 to the operator when the Initiating Cue is presented.
- Respond when required during the JPM as the Shift Manager.
- Amplifying cues are provided within the JPM steps.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You have taken the shift as the CRS in Mode 4.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Review procedures CPS 3001.01, Approach to Critical, CPS 3001.01C001, Preparation for Startup Checklist, CPS 3001.01C002, Mode 2 Checklist.

Identify and report to the Shift Manager all remaining actions required prior to entering Mode 2.

NOTE TO EVALUATOR

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

- Copy of completed CPS 3001.01, Approach to Critical, Rev. 25b
- Copy of completed CPS 3001.01C001, Preparation for Startup Checklist, Rev. 18a
- Copy of completed CPS 3001.01C002, Mode 2 Checklist, Rev. 16c

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

1. 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:
1) CPS 3001.01 Approach to Critical
2) CPS 3001.01C001, Preparation for Startup Checklist
3) CPS 3001.01C002, Mode 2 Checklist

Cue: None

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

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2. RCIC Inoperable

Standard: Operator identifies and reports that RCIC Inoperability does not impact plant startup, LCO 3.5.3. and may N/A Step 9.9 of CPS 3001.01C001.

Cue: If asked RPV pressure is 0 psig.
When reported to, acknowledge the report.

Comments: Not required to be Operable until 150 psig.

SAT ☐ UNSAT ☐ Comment Number _____

***3. All divisions of RHR NOT in Standby**

Standard: Operator identifies and reports that all divisions of RHR must be placed in Standby to enter Mode 2 (Per 3001.01 8.1.5 and 3001.01 C002)

Cue: When reported to, acknowledge the report.

Comments: RHR systems NOT in Standby does not satisfy LCOs for ECCS and Containment Spray:
ITS 3.5.1
ITS 3.6.1.7
ITS 3.6.2.3

SAT ☐ UNSAT ☐ Comment Number

Clinton Power Station
Job Performance Measure (JPM)

***4.**	**RHR B Test Prep Switch in TEST**
Standard:	Operator identifies and reports that RHR B Test Prep Switch must be in NORMAL. (Per 3001.01 Appendix B)
Cue:	When reported to, acknowledge the report.
Comments	ORM 2.5.2 Action 3.5.2 NOT satisfied.
	SAT ☐ UNSAT ☐ Comment Number

TERMINATING CUES:

Reports discrepancies requiring resolution prior to placing the plant into Mode 2.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Verify Conditions are met to Enter Mode 2

JPM Number: JPM113 Revision Number: 01

Task Number and Title: 300101.01, Complete Control Room actions to perform preparation for startup and approach to critical.

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.1.23	4.3	4.4

Suggested Testing Environment: Any

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 3001.01, Preparation for Startup & Approach to Critical, Rev. 25b
CPS 3001.01C001, Preparation for Startup Checklist, Rev. 18a
CPS 3001.01C002, Mode 2 Checklist, Rev. 16c

EVALUATION SUMMARY:

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

You have taken the shift as the CRS in Mode 4.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

Review procedures CPS 3001.01, Approach to Critical, CPS 3001.01C001, Preparation for Startup Checklist, CPS 3001.01C002, Mode 2 Checklist.

Identify and report to the Shift Manager all remaining actions required prior to entering Mode 2.

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CLINTON POWER STATION

Job Performance Measure

Review a Completed SRV Actuation Report

JPM Number: 444

Revision Number: 01

Date: 02/22/2011

Developed By:	**Tom Pickley**	**02/22/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

_____ 1. Task description and number, JPM description and number areidentified.

_____ 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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
Rev 00	N/A	New JPM number (old 3831.0102)
Rev 01	02/22/2011	Updated for procedure revisions.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. None

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

The SRV has been identified as leaking and the failure mode is coded incorrectly.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST Rev 029b
CPS 3831.01, SAFETY RELIEF VALVE REPORT Rev 006a

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

Provide the operator with the following:

- CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST
- CPS 9056.02C001, SAFETY/RELIEF VALVE MANUAL ACTUATION CHECKLIST
- CPS 3831.01, SAFETY RELIEF VALVE REPORT
- CPS 3831.01D002, ACTUATION LOG
- DCS Display 6D-04
- DCS Display D05AD1
- DCS Display DD5BD3
- SRV Tailpipe temperature graph

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST was completed during steady state operations at 80% power.

CPS 3831.01, SAFETY RELIEF VALVE REPORT has been completed.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

As the CRS, you are to review and approve CPS 3831.01, SAFETY RELIEF VALVE REPORT.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

***1**	**Reviews through block 305 of CPS 3831.01, SAFETY RELIEF VALVE REPORT**
Standard	**Determines that block 305 is incorrect, Reason for actuation should be "B".**
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number ___

***2**	**Reviews block 306 of CPS 3831.01, SAFETY RELIEF VALVE REPORT**
Standard	**Determines that block 306 is incorrect, Reason for actuation should be "C".**
CUE	
Comments	
	SAT ☐ UNSAT ☐ Comment Number ___

Clinton Power Station
Job Performance Measure (JPM)

***3**	**Reviews through block 309 of CPS 3831.01, SAFETY RELIEF VALVE REPORT**
Standard	**Determines that block 309 is incorrect, the tail pipe has not returned to normal or that the SRV is leaking.**
CUE	
Comments	SAT ☐ UNSAT ☐ Comment Number ___

TERMINATING CUES:

The SRV actuation log has been reviewed.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Review a Completed SRV Actuation Report

JPM Number: JPM444 Revision Number: 01

Task Number and Title: 383101.01, Complete Control Room actions to document data on failures and actuation's of the Safety Relief Valves in the Main Steam System and to generate reports required by the Nuclear Regulatory Commission.

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.1.32		4.0

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References:
CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST Rev 029b
CPS 3831.01, SAFETY RELIEF VALVE REPORT Rev 006a

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

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

Comments: _____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

CPS 9056.02, SAFETY/RELIEF VALVE ACTUATION TEST was completed during steady state operations at 80% power.

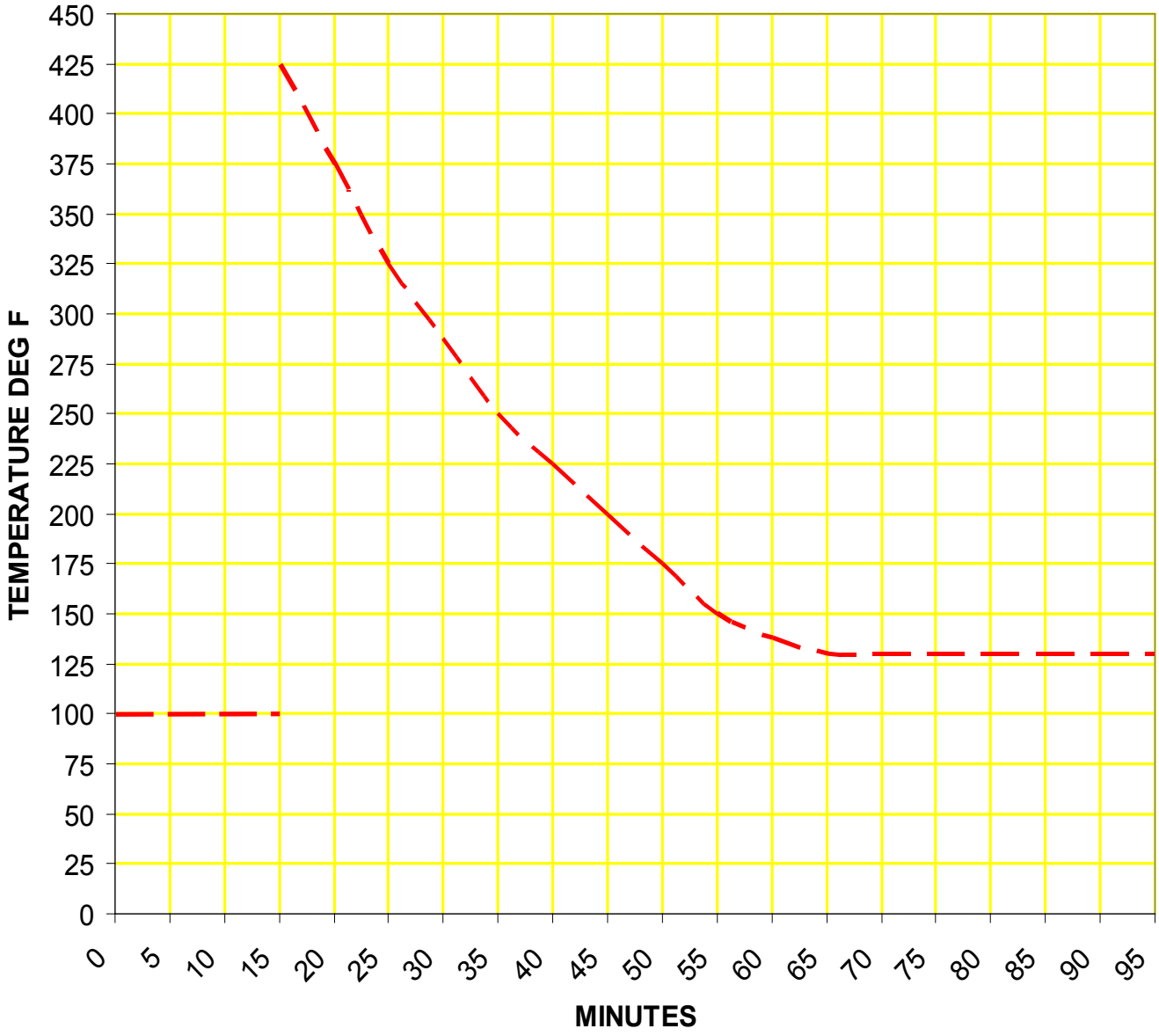
CPS 3831.01, SAFETY RELIEF VALVE REPORT has been completed.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

As the CRS, you are to review and approve CPS 3831.01, SAFETY RELIEF VALVE REPORT.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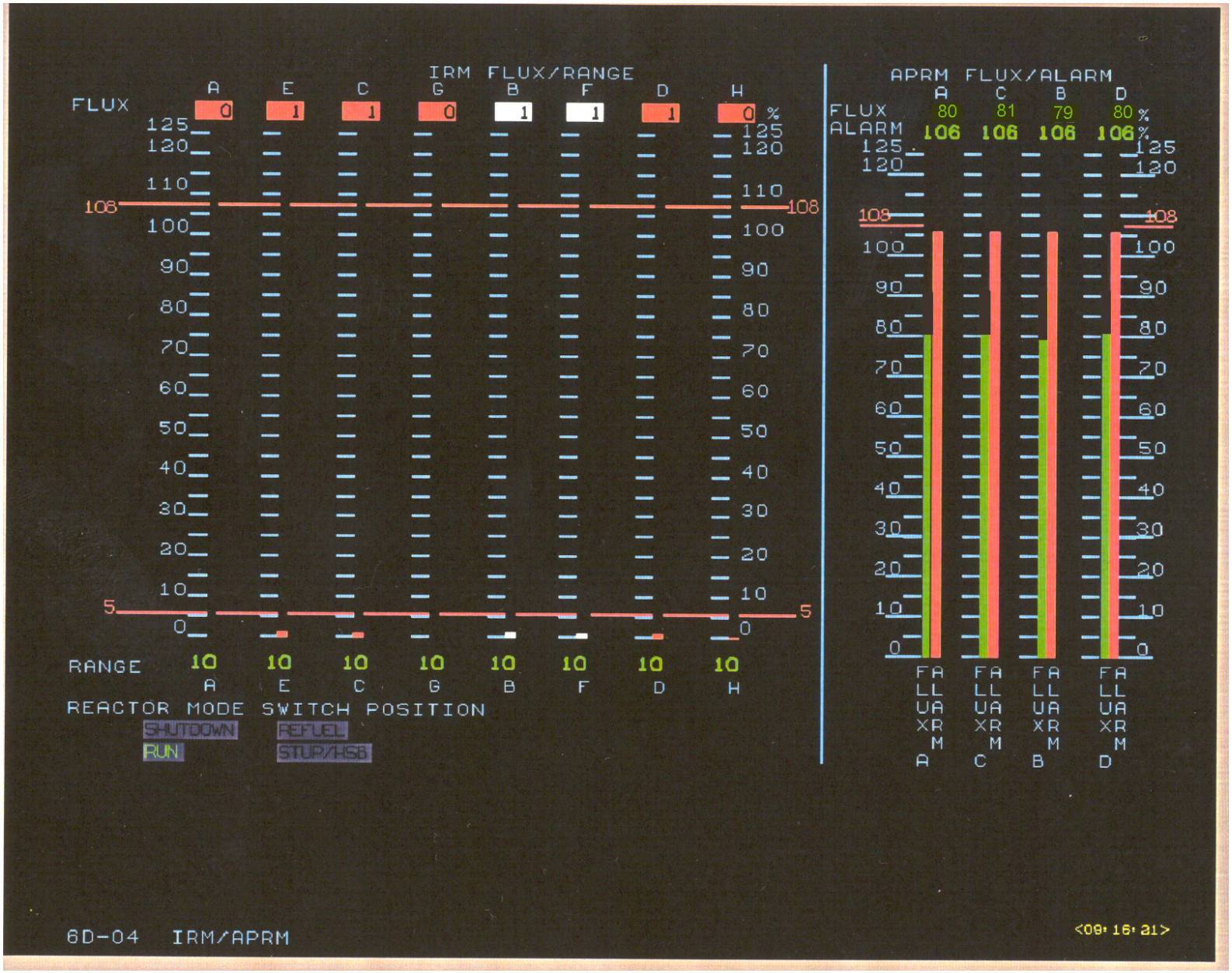
90
95
MINUTES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0 1 1 0 1 1 1 0 %
125 120 110 108 100 90 80 70 60 50 40 30 20 10 5 0
RANGE
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A E C G B F D H
REACTOR MODE SWITCH POSITION
SHUTDOWN
REFUEL
RUN
STUP/HSB
APRM FLUX/ALARM
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A C B D
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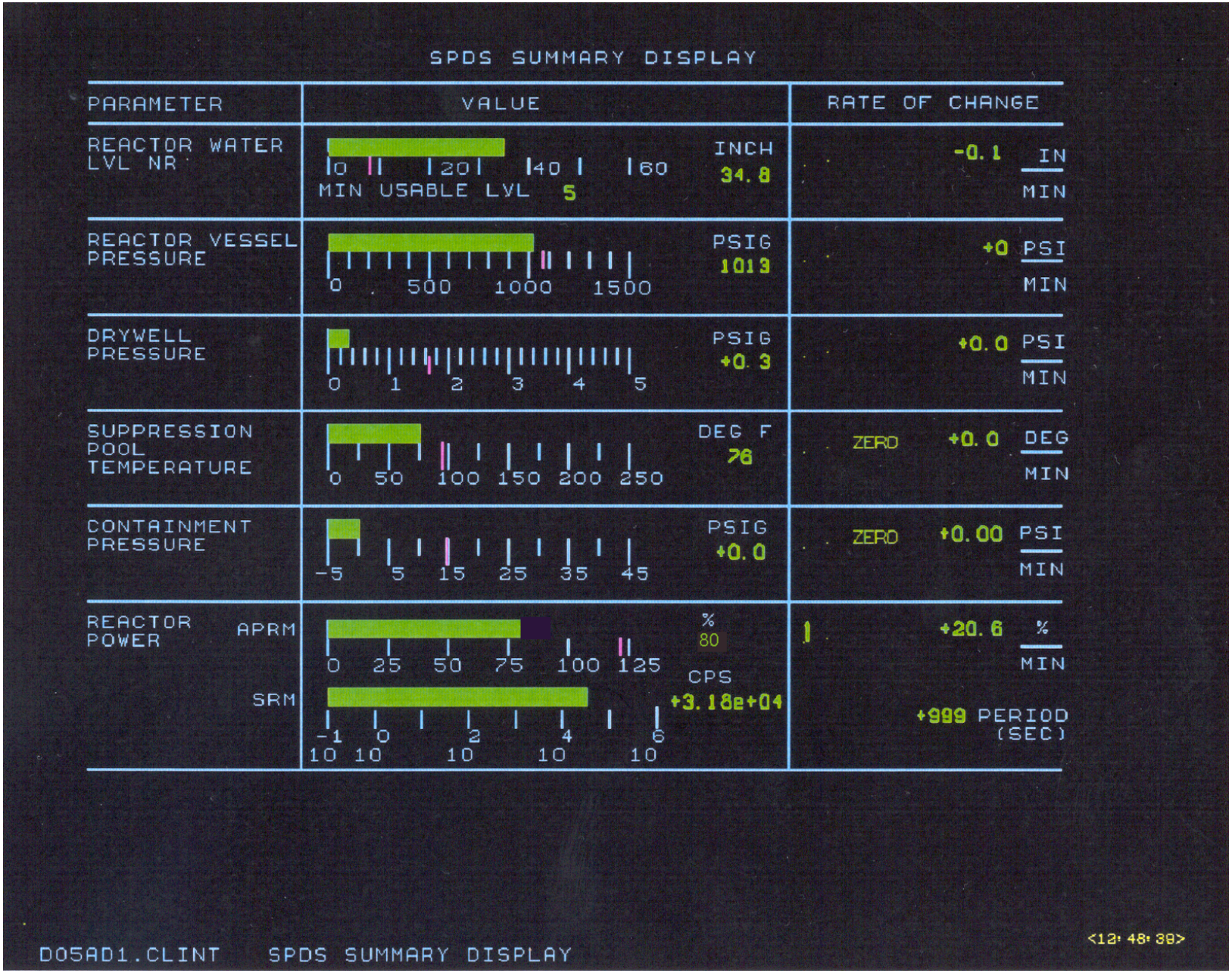
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MIN USABLE LVL 5
INCH
34.8
-0.1 IN
MIN
REACTOR VESSEL PRESSURE
0 500 1000 1500
PSIG
1013
+0 PSI
MIN
DRYWELL PRESSURE
0 1 2 3 4 5
PSIG
+0.3
+0.0 PSI
MIN
SUPPRESSION POOL TEMPERATURE
0 50 100 150 200 250
DEG F
78
ZERO +0.0 DEG
MIN
CONTAINMENT PRESSURE
-5 5 15 25 35 45
PSIG
+0.0
ZERO +0.00 PSI
MIN
REACTOR POWER
APRM
0 25 50 75 100 125
%
80
+20.6 %
MIN
SRM
-1 0 2 4 6
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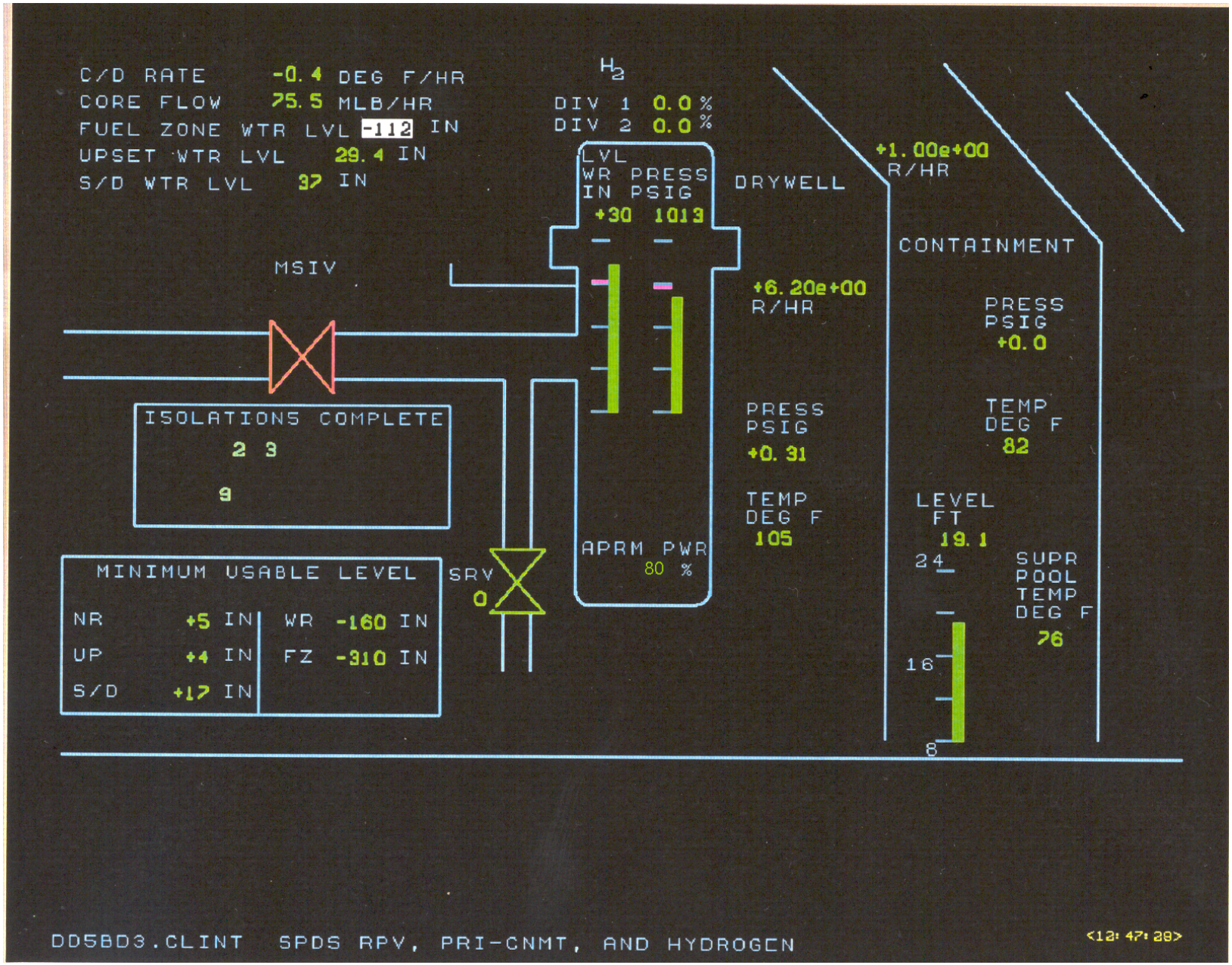
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CORE FLOW 75.5 MLB/HR
FUEL ZONE WTR LVL -112 IN
UPSET WTR LVL 29.4 IN
S/D WTR LVL 37 IN
H2
DIV 1 0.0 %
DIV 2 0.0 %
LVL
WR PRESS
IN PSIG
+30 1013
DRYWELL
+1.00e+00
R/HR
CONTAINMENT
MSIV
+6.20e+00
R/HR
PRESS
PSIG
+0.0
TEMP
DEG F
82
ISOLATIONS COMPLETE
2 3
9
PRESS
PSIG
+0.31
TEMP
DEG F
105
LEVEL
FT
19.1
24
16
8
SUPR
POOL
TEMP
DEG F
76
APRM PWR
80 %
SRV
0
MINIMUM USABLE LEVEL
NR +5 IN
UP +4 IN
S/D +17 IN
WR -160 IN
FZ -310 IN
DD5BD3.CLINT SPDS RPV, PRI-CNMT, AND HYDROGEN
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CLINTON POWER STATION

Job Performance Measure

Authorize an Emergency Dose for a Life Saving Operation

JPM Number: JPM 450

Revision Number: 00

Date: 04/12/2011

Developed By:	**Tom Pickley**	**04/12/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 8 and 12 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, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) 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(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	04/12/2011	New JPM number and format.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. None

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

The life saving operation is authorized per EP-AA-113 r10, Personnel Protective Actions and EP-AA-113-F-02 rB, Authorization for Emergency Exposure.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- EP-AA-113 r10, Personnel Protective Actions
- EP-AA-113-F-02 rB, Authorization for Emergency Exposure

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- Supply the examinee the partially filled out EP-AA-113-F-02 as the volunteer.
- You as the evaluator will play the part of the volunteer who has not yet been briefed.
- Supply the operator with a copy of EP-AA-113, Personnel Protective Actions when the examinee retrieves the procedure.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

An emergency life saving operation must be performed. The operation will take approximately 15 minutes in a 200 Rem/hr field. A volunteer, age 45, comes for your approval to perform the life saving operation.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

As the Acting Shift Emergency Director, take the actions needed to authorize the life saving operation.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

EP-AA-113-F-02

***1.**	**Determines volunteer will receive greater than 25 Rem TEDE.**
Standard	**"25 Rem TEDE (Authorized to receive greater than 25 Rem TEDE)" should be checked.**
CUE	Hand the partially filled out EP-AA-113-F-02 to the examinee as the volunteer.
Comments	.

SAT ☐ UNSAT ☐ Comment Number _____

2.	Determines volunteer has not signed form for briefing.
Standard	Determines volunteer has not been briefed.
CUE	I was told you would perform the brief.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***3.**	**Brief volunteer IAW 3.4.2. At a minimum, this will include health effects at the anticipated exposure level (using Attachment 1 of EP-AA-113).**
Standard	**50 rad will result in 2% of population affected by prodromal effects. (Or words to that effect.)**
Cue:	
Comments	Sign form after briefing is completed. SAT ☐ UNSAT ☐ Comment Number _____

***4.**	**Authorizes the exposure.**
Standard	**Signs for approval.**
Cue:	
Comments	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The life saving operation is authorized.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Authorize an Emergency Dose for a Life Saving Operation

JPM Number: JPM 450 Revision Number: 00

Task Number and Title: 997777.03 Emergency Plan Activities performed by an SRO

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.3.4		3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: EP-AA-113, Rev 10 PERSONNEL PROTECTIVE ACTIONS

EP-AA-113-F-02, Rev B AUTHORIZATION FOR EMERGENCY EXPOSURE

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

An emergency life saving operation must be performed. The operation will take approximately 15 minutes in a 200 Rem/hr field. A volunteer, age 45, comes for your approval to perform the life saving operation.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

As the Acting Shift Emergency Director take the actions needed to authorize the life saving operation.

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CLINTON POWER STATION

Job Performance Measure

Activate the Emergency Response Organization – Using The Backup Automated Call Out System

JPM Number: JPM446

Revision Number: 00

Date: 02/23/2011

Developed By:	**T. Pickley**	**02/23/11**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 8 and 12 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, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) 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(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	02/23/11	New JPM (modified from old A.4.a).

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. None.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- Successfully activates the ERO with an ALERT classification indicated.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Telephone (not connected to any system)

PROCEDURAL/REFERENCES:

- EP-AA-112-100-F-06, Rev N MIDWEST ERO NOTIFICATION OR AUGMENTATION

EVALUATOR INSTRUCTIONS:

- Supply the examinee a copy of EP-AA-112-100-F-06.
- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

An Alert has just been declared. The control room staff has been informed of the classification and the announcement has been made over the Public Address System. You are to activate the Emergency Response Organization. The event is NOT a Security Event.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

As the CRS you have been directed by the Shift Manager to activate the Emergency Response Organization.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

EP-AA-112-100-F-06 MIDWEST ERO NOTIFICATION OR AUGMENTATION

	1.2 Access the automated callout system.
Standard:	Dials 1-877-486-6612.
Cue:	The number is busy.
Comments	Repeat the same cue for subsequent attempts.
	SAT ☐ UNSAT ☐ Comment Number _____

	***2.1 Activation of backup automated call out system**
Standard:	Dials 1-800-308-8836
Cue:	"This is the remote activation module. Please enter your company ID followed by the # sign."
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***2.2(1)**	**Enters the company ID.**
Standard:	Examinee enters 1741 followed by the # sign.
Cue:	"You entered 1741. Is that correct? Press '9' for yes or '6' for No."
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

***2.2(2)**	**Enters '9' for yes.**
Standard:	Examinee enters '9' for yes.
Cue:	"Please enter your scenario activation password followed by the # sign."
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

***2.3**	**Enters the activation password.**
Standard:	Examinee enters 301 followed by the # sign.
Cue:	"You entered 301. Is that correct? Press '9' for yes or '6' for No."
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***2.4**	**Enters '9' for yes.**
Standard:	Examinee enters '9' for yes.
Cue:	"To start a scenario, enter the scenario ID followed by the # sign or press # alone for more options."
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

***2.5**	**Enters the scenario ID number.**
Standard:	Examinee enters 301 followed by the # key.
Cue:	"Please reenter the scenario ID followed by the # sign."
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

***2.6(1)**	**Enters the scenario ID number.**
Standard:	Examinee enters 301 followed by the # key.
Cue:	"You entered 301. Is that correct? Press '9' for yes or '6' for No."
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***2.6(2)**	**Enters '9' for yes.**
Standard:	Examinee enters '9' for yes.
Cue:	"Please select one of the following: • To listen to the current scenario message press 1. • To re-record the scenario message press 2 • To start the scenario press 3. • To return to the main menu press #.
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

***2.7**	**Enters '3' to start the scenario.**
Standard:	Examinee enters '3'.
Cue:	"The scenario is building". Wait 30 seconds then "Press # sign to exit"
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

***2.8**	**Enters '#' when prompted to exit.**
Standard:	The examinee waits for the scenario to build then presses '#' when the recording prompts them to exit.
Cue:	"The scenario is building", wait 30 seconds then "Press # sign to exit". Phone call is complete.
Comments	Cue is the expected response by the automated callout system.
	SAT ☐ UNSAT ☐ Comment Number _____

2.9	Waits for a call from the automated callout system.
Standard:	Examinee waits up to 10 minutes for a confirmation call from the callout system.
Cue:	Automated callout system confirmation call is received.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The examinee has successfully activated the call out system by evidence of the confirmation call.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Activate the Emergency Response Organization – Using the Backup Automated Call Out System.

JPM Number: JPM446 Revision Number: 00

Task Number and Title: 997777.07 Given a postulated E-Plan condition, augment plant staffing IAW corporate EP, and station specific EP procedures.

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.4.38		4.4

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: EP-AA-112-100-F-06, Rev N MIDWEST ERO NOTIFICATION OR AUGMENTATION

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

An Alert has just been declared. The control room staff has been informed of the classification and the announcement has been made over the Public Address System. You are to activate the Emergency Response Organization. The event is NOT a Security Event.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

As the CRS you have been directed by the Shift Manager to activate the Emergency Response Organization.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Transfer RR Pumps from Fast to Slow speed

JPM Number: JPM448

Revision Number: 00

Date: 02/23/2011

Developed By:	**T. Pickley**	**02/23/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	02/23/2011	Modified from JPM 215. Removed alternate path.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Reset the simulator to any IC for plant shutdown with the following conditions:

   - Approximately 33% Power.
   - One TDRFP running in Automatic on Startup Level Controller.

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

2. Open and execute Simulator Lesson Plan JPM448 containing the following:

   - Remote RR107 and RR108 LO TO FAST INT BYPASS; TRUE AS REMOTE 1.

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

4. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- Steps completed for transferring Reactor Recirculation Pumps to Slow Speed.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None.

PROCEDURAL/REFERENCES:

- CPS 3302.01, Rev 31b REACTOR RECIRCULATION (RR)

EVALUATOR INSTRUCTIONS:

- Ensure that the simulator is stable and all Set-up conditions are completed.
- Amplifying cues are provided within the JPM steps.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

A plant shutdown is in progress with power at approximately 33% of rated thermal power. One TDRFP is in operation with level control on the Startup Level Controller.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

As the Reactor Operator you are directed to transfer the Reactor Recirculation Pumps to Slow Speed per CPS 3302.01 REACTOR RECIRCULATION (RR).

Annunciators associated with Reactor Recirculation Pump transfer are to be considered "Expected Annunciators" and treated as such. REMA indicates it is permissible to enter the Controlled Entry Region.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS 3302.01, REACTOR RECIRCULATION

***8.1.3.1** **1. Start both LFMG's:**
- **Close LFMG A Bkr 1A for RR pump 1A.**
- **Close LFMG B Bkr 1B for RR pump 1B**

Standard:	Close LFMG A & B Motor Breakers 1A & 1B.
Cue:	As CRS respond to 'A' RO report of start of LFMGs.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.3.2	(Local)	At 1B33-P001A and B, LFMG Aux Relay Panel, place following keylock switches to BYPASS: A pump: ° S126A, Power Interlock (Both on FB 781' East) ° S127A, Total Feedwater Low Flow Interlock B pump: ° S126B, Power Interlock (Both on FB 781' West) ° S127B, Total Feedwater Low Flow Interlock
Standard:		Request area operator to bypass the FW Flow FCV cavitation/RR pump downshift interlocks at 1B33-P001A and B, LFMG Aux Relay Panel by placing S126A&B and S127A&B in BYPASS.
Cue:		• Insert **REMOTE 1** and inform the examinee the switches you identified are in the position you described.
Comments		
	SAT ☐	UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.3.3	Make the following RR pump transfer notifications: 1) Notify RP of potential change in Rad levels. 2) Make a plant wide Gaitronics announcement that the RR pumps will be transferred to slow.
Standard:	Simulates calling RP to notify them of potential Rad level changes Simulates making Gaitronics announcement, Transferring RR Pumps to Slow Speed.
Cue:	Respond as RP acknowledging notification of changing Rad levels.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.1.3.4**	**Place both 1B33-F060A & B, Recirc FCVs at ~ 10%, but <u>not</u> > 10% position.**
Standard:	Place both 1B33-F060A & B, Recirc FCVs at ~ 10%, but <u>not</u> > 10% position.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.1.3.5**	**Transfer the RR pumps to the LFMG by depressing <u>both</u> TRANSFER TO LFMG A and B push-buttons simultaneously.**
Standard:	Transfer the RR pumps to the LFMG by depressing both TRANSFER TO LFMG A and B push-buttons simultaneously.
Cue:	As CRS respond to 'A' RO report of transfer to slow speed.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.1.3.6	Observe that the 5A and 5B breakers open and when pump speed decreases, the 2A and 2B breakers close.
Standard:	Observes that: • The 5A and 5B breakers open and when pump speed decreases the 2A and 2B breakers close.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:
- RR pumps shifted to slow speed.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Transfer RR Fast to Slow

JPM Number: JPM448 Revision Number: 00

Task Number and Title: 330201.24 RR Pump Transfer To Slow Speed

K/A System	K/A Number	Importance (RO/SRO)	
202001	A4.01	3.7	3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 3302.01, Rev 31b REACTOR RECIRCULATION (RR)

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

A plant shutdown is in progress with power at approximately 33% of rated thermal power. One TDRFP is in operation with level control on the Startup Level Controller.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

As the Reactor Operator you are directed to transfer the Reactor Recirculation Pumps to Slow Speed per CPS 3302.01 REACTOR RECIRCULATION (RR).

Annunciators associated with Reactor Recirculation Pump transfer are to be considered "Expected Annunciators" and treated as such. REMA indicates it is permissible to enter the Controlled Entry Region.

Exelon SM
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CLINTON POWER STATION

Job Performance Measure

Manually Startup RCIC System (Alternate Path)

JPM Number: JPM204

Revision Number: 01

Date: 02/18/2011

Developed By:	**T Pickley**	**02/18/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	07/06/2007	Updated numbering convention. Old JPM number: 33100104LSA02.
01	02/18/11	Updated for procedure revision.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Initialize to any suitable IC with RCIC in Standby.

2. Place clearance tags on MDRFP and auxiliary oil pump. Ensure clearance covers are removed at the completion of the JPM.

3. Open and execute Simulator Lesson Plan JPM204 which will perform the following:

   - Loss of Main Condenser Vacuum with Group 1 isolation.
   - Insert malfunction to disable RCIC Automatic Initiation
   - Insert an Instructor Override (I/O) to maintain the RCIC Manual Initiation Pushbutton NOT DEPRESSED

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

4. Restore Reactor level to approximately -10 inches using High Pressure Core Spray (HPCS) and then shutdown the HPCS system (as necessary).

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

6. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- The Reactor Core Isolation Cooling (RI) System is manually initiated and is injecting into the reactor vessel per CPS No. 3310.01, REACTOR CORE ISOLATION COOLING (RI)

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS No. 3310.01, Rev 27d REACTOR CORE ISOLATION COOLING (RI)

EVALUATOR INSTRUCTIONS:

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

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

A loss of all Feedwater has occurred followed by an Automatic Scram.

All immediate Operator actions have been completed.

You are the "Extra" Reactor Operator.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Manually initiate RCIC and inject into the RPV.

Report to the CRS when injecting.

Hard Card use is authorized.

START TIME: _____

Note: If the hard card is used the steps will be in a different order.

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

Appendix C: RCIC INITIATION/SHUTDOWN HARD CARD

8.1.3	As needed, Arm, depress and HOLD depressed the RCIC MANUAL INITIATION push-button until 1E51-F045 begins to open (takes ~ 6 secs).
Standard:	Recognizes failure of RCIC to initiate via logic and proceeds to manual startup with logic not available.
Cue:	If reported to CRS, acknowledge report, then state, "Continue with RCIC startup".
Comments	First step may be performed with Hard Card, but manual startup/logic not operable steps found only in procedure.
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

BEGIN ALTERNATE PATH

3310.01 REACTOR CORE ISOLATION COOLING (RI)

8.1.4.1 Start Gland Seal Air Compressor.

Standard: Locates hand switch and rotates to START position, Red light ON for the Gland Seal Air Compressor.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8.1.4.2 OPEN 1E51-F046, RCIC Pmp Supp to Turb Lube Oil Clr**.

Standard: Locates hand switch for 1E51-F046 and rotates to OPEN, Red light ON for 1E51-F046.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.1.4.4 Trip the main turbine.

Standard: Verifies Green TRIPPED indicating lights ON for the Main Turbine.

Cue:

Comments Procedure step can be considered "Condition Met" (and trip not actually performed) if verifications made.

SAT ☐ UNSAT ☐ Comment Number _____

8.1.4.5	Trip both reactor feed pump turbines.
Standard:	Verifies Green lights ON for RFPT A and B, HP and LP Stop Valves.
Cue:	
Comments	Procedure step can be considered "Condition Met" (and trip not actually performed) if verifications made. SAT ☐ UNSAT ☐ Comment Number _____

***8.1.4.6**	**OPEN 1E51-F045, RCIC Turb Stm Supp Shutoff Valve.**
Standard:	Locates hand switch for 1E51-F045 and rotates switch to the OPEN position and verifies Red light ON for 1E51-F045.
Cue:	
Comments	During RCIC operation 1E51-F019, RCIC Pump Min Flow Recirc to Suppr Pool will open be when RCIC flow < 120 gpm. SAT ☐ UNSAT ☐ Comment Number _____

***8.1.4.7**	**OPEN 1E51-F013, RCIC Pump Disch to Rx Outbd Isol Valve.**
Standard:	Locates hand switch for 1E51-F013 and rotates switch to the OPEN position and verifies red light ON for 1E51-F013.
Cue:	
Comments	During RCIC operation 1E51-F019, RCIC Pump Min Flow Recirc to Suppr Pool will be shut when RCIC flow is > 240 gpm. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.4.8.1 Verify 1E51-F025 RHR & RCIC Stm Supp First Drn Isol Vlv shut.

Standard: Verifies Green light ON for 1E51-F025.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.1.4.8.2 Verify F026, RHR & RCIC Stm Supp Second Drn Isol Vlv shut.

Standard: Verifies Green light ON for 1E51-F026.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.1.4.8.3 Verify 1E51-F004 RCIC Turb Exh Drn To RF First Isol Valve shut.

Standard: Verifies Green lights ON for 1E51-F004.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.1.4.8.4	Verify F005, RCIC Turb Exh Drn To RF Second Isol Valve shut.
Standard:	Verifies Green lights ON for 1E51-F005.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.1.4.9	Verify RCIC Pmp Rm Sply Fan, 1VY04C running.
Standard:	Verifies Red light ON for 1VY04C. (located on P801)
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

	Monitor RPV level. Adjust RCIC Pump Flow Cont, 1E51-R600 as necessary to maintain desired RPV level.
Standard:	IF RCIC Flow Controller is shifted to Manual THEN Maintains RCIC Turbine speed ≥ 1500 rpm.
Cue:	If asked, as CRS state, "Maintain the RCIC Flow Controller in AUTO. Your level band is Level 3 to Level 8."
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

The RCIC system is injecting water into the reactor vessel IAW CPS No. 3310.01.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Manually Startup RCIC System (Alternate Path)

JPM Number: JPM204 Revision Number: 01

Task Number and Title: 331001.04 Manually RCIC Initiation with Logic Not Operable

K/A System	K/A Number	Importance (RO/SRO)	
217000	A4.04	3.6	3.6

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS No. 3310.01, Rev 27d REACTOR CORE ISOLATION COOLING (RI)

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

A loss of all Feedwater has occurred followed by an Automatic Scram.

All immediate Operator actions have been completed.

You are the "Extra" Reactor Operator.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

Manually initiate RCIC and inject into the RPV.

Report to the CRS when injecting.

Hard Card use is authorized.

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CLINTON POWER STATION

Job Performance Measure

Perform RPS MSIV Channel Functional

JPM Number: JPM447

Revision Number: 00

Date: 02/18/2011

Developed By:	**Tom Pickley**	**02/18/11**
	Instructor	**Date**
Reviewed By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	08/15/07	New JPM number (old 903101).

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. Reset the simulator to any IC with power <92% and the MSIVs open.
2. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- The evolution completed IAW CPS No. CPS 9031.10, RPS MAIN STEAM LINE ISOLATION VALVE CHANNEL FUNCTIONAL.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 9031.10, RPS MAIN STEAM LINE ISOLATION VALVE CHANNEL FUNCTIONAL Rev 25c.

EVALUATOR INSTRUCTIONS:

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

Clinton Power Station
Job Performance Measure (JPM)

Initial Conditions

You are the B RO.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

Perform CPS 9031.10, RPS MAIN STEAM LINE ISOLATION VALVE CHANNEL FUNCTIONAL for MSIVs 1B21-F022A and 1B21-F022B. All prerequisites are complete. You have permission to perform critical steps. Computer points will be monitored by another operator and you will be informed of their status.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

8.1 INBOARD MSIV TESTING
8.1.1 1B21-F022A, Main Steam Line A Inbd MSIV Test

***1 1. Place 1B21-F022A, Main Steam Line A Inbd MSIV control switch to the CLOSE TEST position.**

Standard: Locates control switch for 1B21-F022A and rotates clockwise.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

	*2	**2. Depress and hold the test push-button, MAIN STEAM LINE A INBD MSIV Test.** Verify the following: 1) Both red and green lights are ON. 2) Alarm 5004-3C, DIV 1 or 4 MSIV CL TRIP annunciates. 3) Computer point B21NC047, Main Steam Line Isolation Valve CH. A indicates 'tripped' or in a Logic 1 State.
Standard:		Locates and depresses the test push button.
Cue:		Computer point B21NC047 indicates 'tripped'
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

	***3**	**3. After alarm is received, release the test push-button.** Verify the following: 1) Red ON green light OFF. 2) Alarm 5004-3C, DIV 1 or 4 MSIV CL TRIP clears. 3) Computer point B21NC047, Main Steam Line Isolation Valve CH. A indicates 'reset' or in Logic 0 State.
Standard:		Releases test push button prior to the RED light going out.
Cue:		Computer point B21NC047 indicates ‘Reset”
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

	4	4. Place 1B21-F022A, Main Steam Line A Inbd MSIV control switch to AUTO position.
Standard:		Locates control switch for 1B21-F022A and rotates counter clockwise.
Cue:		
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2 INBOARD MSIV TESTING
8.1.2 1B21-F022B, Main Steam Line A Inbd MSIV Test

***5 1. Place 1B21-F022B, Main Steam Line B Inbd MSIV control switch to the CLOSE TEST position.**

Standard: Locates control switch for 1B21-F022B and rotates clockwise.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

	*6	**2. Depress and hold the test push-button, MAIN STEAM LINE B INBD MSIV Test.** Verify the following: 1) Both red and green lights are ON. 2) Alarm 5005-3C, DIV 2 or 3 MSIV CL TRIP annunciates. 3) Computer point B21NC048, Main Steam Line Isolation Valve CH. B indicates 'tripped' or in a Logic 1 State.
Standard:		Locates and depresses the test push button.
Cue:		Computer point B21NC048 indicates 'tripped'
Comments		

SAT ☐ UNSAT ☐ Comment Number _____

	***3**	**4. After alarm is received, release the test push-button.** Verify the following: 1) Red ON green light OFF. 2) Alarm 5005-3C, DIV 2 or 3 MSIV CL TRIP clears. 3) Computer point B21NC048, Main Steam Line Isolation Valve CH. B indicates 'reset' or in Logic 0 State.
Standard:		Releases test push button prior to the RED light going out.
Cue:		Computer point B21NC048 indicates 'Reset'
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

	4	4. Place 1B21-F022B, Main Steam Line B Inbd MSIV control switch to AUTO position.
Standard:		Locates control switch for 1B21-F022B and rotates counter clockwise.
Cue:		
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

CPS 9031.10, RPS MAIN STEAM LINE ISOLATION VALVE CHANNEL FUNCTIONAL is complete for MSIVs 1B21-F022A and 1B21-F022B.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

Job Title: ☐ RO ☐ SRO

JPM Title: Perform RPS MSIV Channel Functional

JPM Number: JPM447 Revision Number:00

Task Number and Title: 903110.01 RPS MSIV channel functional test

K/A System	K/A Number	Importance (RO/SRO)	
239001	A4.01	4.2	4.0

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 9031.10, RPS MAIN STEAM LINE ISOLATION VALVE CHANNEL FUNCTIONAL Rev 25c.

EVALUATION SUMMARY:

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

You are the B RO.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

Perform CPS 9031.10, RPS MAIN STEAM LINE ISOLATION VALVE CHANNEL FUNCTIONAL for MSIVs 1B21-F022A and 1B21-F022B. All prerequisites are complete. You have permission to perform critical steps. Computer points will be monitored by another operator and you will be informed of their status.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

SX Injection Through RHR B

JPM Number: JPM440

Revision Number: 00

Date: 02/22/2011

Developed By:	**T. Pickley**	**02/22/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 8 and 12 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, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) 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(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	02/22/2011	New JPM.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Initialize to any suitable IC with the plant depressurized.

2. Open and execute Simulator Lesson Plan JPM440 which will perform the following:

   - Put in RR leak and removed. Initiated ADS. Plant is Shutdown and depressurized with a Hi Drywell Pressure Signal locked in.

   - SX Pumps A and B are off. SX Pump B will trip if started. SX pump A will run if started

   - HPCS, LPCS, RHR A/B/C Pumps tripped.

   - Tripped all Condensate (CD) pumps which also tripped running Condensate Boost (CB) and Rod Drive (RD) pump.

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

4. CAUTION: IC should "fall through" with SX pump A in STOP. IC will "fall through" with SX pump A in START, however, it will start when simulator is taken out of freeze. Verify SX pump A is NOT running prior to performance of JPM.

5. This completes the setup for this JPM.

6. Save to a different IC if JPM is being used more than once.

7. Freeze Simulator.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- SX is injecting through RHR B

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS No. 4411.03, Rev 07 Injection/Flooding Sources

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.
- Verify Key is removed from 1E12-F096, Service Water to RHR Blocked Supp Vlv at the conclusion of this JPM.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are the B RO. The plant is Shutdown and depressurized.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Inject to the RPV using CPS 4411.03 Injection Flooding Sources, App. A: RHR Injection/Flooding Flow Paths, Method 2.0 SX Through RHR B.

The isolation of non-essential SX loads will be performed by the extra RO.

Report to the CRS after completing the task.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS 4411.03 Injection/Flooding Sources

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

Standard: 1E12-F003B Green light on Red light off.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

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

Standard: 1E12-F048B Green light on Red light off.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

BEGIN ALTERNATE PATH

2.3.1 Verify SX running per
CPS 3211.01, Shutdown Service Water (SX).

Standard:	Determines B SX is unavailable and verifies A SX is running per CPS 3211.01.
Cue:	
Comments	Examiners Note: An auto start signal currently exists for both SX pumps, but neither pump is running. The candidate will attempt to start the preferred pump (B) and then the backup pump (A) in the next two steps.

SAT ☐ UNSAT ☐ Comment Number _____

CPS 3211.01 Shutdown Service Water (SX)

8.1.2 1) Start SX Pump, 1SX01PB.

Standard:	Determines B SX pump trips.
Cue:	If asked what to due "Follow the procedure".
Comments	The procedure will direct the usage of the A SX pump.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.1.2**	**1) Start SX Pump, 1SX01PA.** 2) Verify SX strainer outlet pressure ~ 150 - 175 psig. 3) Verify shut/shut 1SX014A, WS to SX Header Isolation Valve. 4) Verify running or start 1VH01CA, SX Pump Room Supply Fan.
Standard:	Starts A SX per CPS 3211.01.
Cue:	
Comments	Starting the A SX pump is the only critical part of this step.

CPS 4411.03 Injection/Flooding Sources

***2.3.2**	**As necessary to support core cooling, Div 1 SX may be cross-connected with Div 2 SX by opening 1SX011A & B, Div 1(2) Cross Tie Valves.**
Standard:	Opens 1SX011A & B, Div 1(2) Cross Tie Valves.
Cue:	If permission to open 1SX011A & B is requested, grant permission as CRS.
	SAT ☐ UNSAT ☐ Comment Number _____

2.4 Shut:

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

Standard:	Verifies the valves are shut i.e. green light on red light off.
Cue:	
Comments	These valves are initially shut.
	SAT ☐ UNSAT ☐ Comment Number _____

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

Standard:	Verifies 1E12-F027B is open green light off red light on.
Cue:	
Comments	1E12-F027B is initially open.
	SAT ☐ UNSAT ☐ Comment Number _____

***2.6 Open 1E12-F096, (Key operated switch)**
Service Water To RHR Blocked Supp Vlv.

Standard: 1E12-F096 Green light off red light on.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

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

Standard: 1E12-F094 Green light off red light on.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

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

Standard: 1E12-F042B Green light off red light on.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

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

☞ Expected flow rate is 100 gpm and will be difficult to see on the installed indication.

Standard:	Monitors SX flow
Cue:	
Comments	Flow will be difficult to see (first tic mark is 1000 gpm). Once standard is met, recommend terminating JPM.

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

SX is injecting through RHR B IAW CPS No. 4411.03.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: SX Injection through RHR B

JPM Number: JPM440 Revision Number: 00

Task Number and Title: 441103.15 SX through RHR B system injection and containment flooding operations when in EOPs/SAGs.

K/A System	K/A Number	Importance (RO/SRO)	
203000	A4.02	4.1	4.1

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS No. 4411.03, Rev 7 Injection/Flooding Sources

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

You are the B RO. The plant is Shutdown and depressurized.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Inject to the RPV using CPS 4411.03 Injection Flooding Sources, App. A: RHR Injection/Flooding Flow Paths, Method 2.0 SX Through RHR B.

The isolation of non-essential SX loads will be performed by the extra RO.

Report to the CRS after completing the task.

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CLINTON POWER STATION

Job Performance Measure

Verify a Group 3 Isolation

JPM Number: JPM452

Revision Number: 00

Date: 04/28/2011

Developed By:	**T. Pickley**	**04/28/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 8 and 12 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, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) is 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(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____	_____
SME / Instructor	Date
_____	_____
SME / Instructor	Date
_____	_____
SME / Instructor	Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	04/28/11	New JPM.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Initialize to any suitable IC with RHR B in Shutdown Cooling.

2. Turn on the Shutdown Cooling Recorder (E12-R601).

3. Apply Info Tags to 1E12-F042B & 1E12-F064B IAW CPS 3312.03.

   - "RHR B SDC is in service. Operation of this valve will result in LPCI injection into the core shroud. Do not operate this valve unless required by an emergency or an approved procedure."

   - "1E12-F064B is in the shut/deenergized position to ensure that an inadvertent loss of RPV level does not occur. Pump minimum flow protection previously provided by the F064B valve is now maintained by securing the RHR B pump when SDC flow is < 1100 gpm."

4. Open and execute Simulator Lesson Plan JPM450 which will perform the following:

   - Insert Remote Functions RH_EP206 and RH_EP205 Defeat Shutdown Cooling Isolations.

   - Override the lights for 1E12-F009 to off and valve to OPEN.

   - Close/check closed 1E12-F023.

   - Verify 1E12-F008 & 1E12-F053B are open and their cups are removed.

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

6. This completes the setup for this JPM.

7. Save to a different IC if JPM is being used more than once.

8. Freeze Simulator.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- The Group 3 isolation is complete (with the exception of 1E12-F009, Shutdown Cooling Inbd Suct Isol Vlv).

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS No. 4001.01, Rev 17 Automatic Isolation
- CPS 4001.02C001, Rev 15b Automatic Isolation Checklist
- CPS 9000.10, Accident Monitoring and Remote Shutdown Instrumentation Log

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.
- Provide the following procedures to the candidate:
  - CPS No. 4001.01, Rev 17 Automatic Isolation
  - CPS 4001.02C001, Rev 15b Automatic Isolation Checklist
- Provide a copy of CPS 9000.10 Accident Monitoring and Remote Shutdown Instrumentation Log, if requested. Candidate may use this document to identify the computer point for 1E12-F009 (RH-BC831).

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

RHR B was in Shutdown Cooling when reactor water level dropped below Level 3.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Verify the Group 3 isolation is complete.

Report to the CRS after completing the task.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS 4001.02 AUTOMATIC ISOLATION

4.7 Complete CPS 4001.02C001, Automatic Isolation Checklist for affected isolation GROUPs, including the performance of manual isolation of components/systems that have failed to automatically isolate.

Steps may be performed in any order.

CPS 4001.02C001 AUTOMATIC ISOLATION CHECKLIST

1 Verify Shut 1E12-F053A

Standard: Green light on Red light off

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

BEGIN ALTERNATE PATH

	***2**	**Shuts 1E12-F053B**
Standard:	Green light on Red light off	
Cue:		
Comments		
	SAT ☐	UNSAT ☐ Comment Number _____

	***3**	**Shuts 1E12-F008**
Standard:	Green light on Red light off	
Cue:		
Comments		
	SAT ☐	UNSAT ☐ Comment Number _____

	4	Verifies Shut 1E12-F009
Standard:	Determines both lights are off	
Cue:	If Field Operator is dispatched to investigate, report breaker is in trip free position, acrid odor present, no smoke, and no fire. No other abnormalities noted.	
Comments	Acknowledge report as CRS (if required). If EO is sent to Drywell to manually shut 1E12-F009, acknowledge as EO and instruct candidate to continue.	
	SAT ☐	UNSAT ☐ Comment Number _____

	5	Verifies Shut 1E12-F023
Standard:		Green light on Red light off
Cue:		
Comments		
	SAT ☐	UNSAT ☐ Comment Number _____

TERMINATING CUES:

The Group 3 isolation is complete with the exception of 1E12-F009.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Verify a Group 3 isolation

JPM Number: JPM452 Revision Number: 00

Task Number and Title: 400102.01 respond to an Automatic Isolation

K/A System	K/A Number	Importance (RO/SRO)	
223002	A4.01	3.6	3.5

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS No. 4001.02, Rev 15 Automatic Isolation
CPS 4001.02C001, Rev 15b Automatic Isolation Checklist
CPS 9000.10, Accident Monitoring and Remote Shutdown Instrumentation 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: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

RHR B was in Shutdown Cooling when reactor water level dropped below Level 3.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Verify the Group 3 isolation is complete.

Report to the CRS after completing the task.

Exelon SM
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CLINTON POWER STATION

Job Performance Measure

Parallel DG 1B With Offsite Power

JPM Number: JPM414

Revision Number: 01

Date: 02/18/2011

Developed By:	**T. Pickley**	**02/18/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

SRRS: 3D.105 (when utilized for operator initial or continuing training)

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 8 and 12 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, simulator, or other)

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) 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(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

_____ 9. Verify cues both verbal and visual are free of conflict.

_____ 10. Verify performance time is accurate

_____ 11. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____ 12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00		This replaces JPM 3506.0105. Revision number reset to 0.
01	02/18/2011	Updated for procedure revision.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Initialize to any suitable IC with the DG in standby, and:

   - Start Diesel Generator 1B.
   - Load Lesson Plan. To indicate the problem in the field the report will be high temperature on the cooling system above the trip setpoint.
   - Synch Switch is off with the key removed.
   - Turn on recorder power to allow the SVC Voltmeter to indicate.

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

3. This completes the setup for this JPM.

4. Save to a different IC if JPM is being used more than once.

5. Freeze Simulator.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- The Diesel Generator 1B and its associated output breaker are tripped.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability marked up through Step 8.2.12.
- CPS 9080.02D001, Diesel Generator 1B Operability – Manual and Quick Start Data Sheet marked up through Step 8.2.12.
- CPS 3506.01C002, Diesel Generator 1B Pre-Start Checklist filled out.
- CPS 3506.01C005, Diesel Generator Start Log filled out.

PROCEDURAL/REFERENCES:

- CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, Rev. 49e
- CPS 9080.02D001, Diesel Generator 1B Operability – Manual and Quick Start Data Sheet, Rev. 42c
- CPS 3506.01C002, Diesel Generator 1B Pre-Start Checklist, Rev. 10
- CPS 3506.01C005, Diesel Generator Start Log, Rev. 1

EVALUATOR INSTRUCTIONS:

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

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are the B Operator.
The plant is in a normal electrical power lineup.
DG 1B was started per CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, and is complete through step 8.2.11.

An Area Operator is standing by if needed.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

You are directed to parallel Diesel Generator 1B with Offsite Power and load to ~ 3700 KW, for a 1 hour run, per CPS 9080.02, beginning at step 8.2.12.

NOTE TO EVALUATOR

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

- CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability marked up through Step 8.2.11.
- CPS 9080.02 D001, Diesel Generator 1B Operability – Manual and Quick Start Data Sheet
- CPS 3506.01C002, Diesel Generator 1B Pre-Start Checklist filled out.
- CPS 3506.01C005, Diesel Generator Start Log filled out.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

8.2 **Diesel Generator 1B Operability**

CAUTIONS

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

Clinton Power Station
Job Performance Measure (JPM)

8.2.12 Load the DG per the following:

***1. 8.2.12.1** **Place DG 1B Output Bkr Sync switch to the ON position.**	
Standard:	Inserts a key and turns the Output Bkr Sync switch to the ON position.
Cue:	None, self revealing
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

2. 8.2.12.2 Adjust DG 1B voltage so that INCOMING voltage is matched with RUNNING voltage.	
Standard:	Examinee adjusts DG 1B voltage regulator so that INCOMING voltage is matched with RUNNING voltage.
Cue:	None, self revealing
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	3. 8.2.12.3 Adjust DG 1B speed such that DG frequency is slightly greater than bus frequency as indicated by the following: 1) CLOCKWISE rotation of the synchroscope at a speed of approximately one revolution every 60-120 sec. (i.e., ½ - 1 RPM) or slower. 2) Both synchroscope lights are extinguished at the 12 o'clock position. 3) Both synchroscope lights are brightly lit at the 6 o'clock position.
Standard:	Examinee adjusts DG 1B governor control switch so DG frequency is slightly greater than bus frequency by observing: • Slow rotation in the clockwise direction • Both synchroscope lights are extinguished at the 12 o'clock • Both synchroscope lights are brightly lit at the 6 o'clock
Cue:	None, self revealing
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

4. 8.2.12.4

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

   - Rapid change in DG output voltage,
   - Rapid change in DG frequency,
   - Rapid change in DG KW,
   - Rapid change in DG KVAR,

   THEN Trigger TT for future NSED analysis.

   ☞ TT may be reset per SMngt after initial data is captured.

Standard: No action required at this time.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***5. 8.2.12.5**

WHEN The synchroscope's pointer nears the vertical (12 o'clock) position, **and** the synchronizing lamps go dark,

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

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

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***6. 8.2.12.5**

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

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

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number

Clinton Power Station
Job Performance Measure (JPM)

7. 8.2.12.5
   3) Preferable VARs loading is between 100 to 0 KVAR (0.8 lagging and 1.0 power factor); adjust as necessary.

Standard: Operator adjusts VARs as necessary with the voltage regulator.

Cue: None, self revealing

Comments

SAT ☐ UNSAT ☐ Comment Number

CAUTION

1. *To ensure operability and to prevent overloading of the Emergency Diesel Generators, the Continuous Load Rating of **3875 KW** should not be exceeded, except as directed by approved surveillance tests. «6.2.11»*
2. *The DG shall also be operated within the limits of Appendix A, DG 1A(1B) REACTIVE LOAD CAPABILITY CURVE . «CM-6»*
3. *The DG should be operated at a power factor between 0.8 lagging and 1.0 to observe machine design ratings and minimize circulating currents.*

NOTES

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

***8. 8.2.12.6**

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

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

Cue: See step 9 for cue.

Comments: When the DG reaches 1100KW the diesel generator trouble alarm comes in.

SAT ☐ UNSAT ☐ Comment Number

Begins Alternate Path

NOTE: At any time Examinee may go directly to Step 13 and Open DG 1B Output Breaker and secure or Emergency Stop the DG. If so, N/A steps 10, 11 and 12, and continue at step 13.

9. Annunciator for DG trouble comes in at approximately 1100KW.

Standard: Operator notifies SRO of problem.

Cue: After the RO calls the equipment operator inform the RO that the "Diesel Generator coolant temperature is 196ºF and rising."

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

Comments: Examinee may go directly to Step 13 and take action to Open DG 1B Output Breaker and secure or Emergency Stop the DG. If so, N/A steps 10, 11 and 12, and continue at step 13.

SAT ☐ UNSAT ☐ Comment Number

Clinton Power Station
Job Performance Measure (JPM)

10.	8.2.13.2 Lower DG 1B load to 100 – 200 KW..
Standard:	Operator takes handswitch for DG 1B governor control switch to LOWER.
Cue:	None, self revealing
Comments	Examinee may go directly to Step 13 and take action to Open DG 1B Output Breaker and secure or Emergency Stop the DG. If so, N/A steps 10, 11 and 12, and continue at step 13. SAT ☐ UNSAT ☐ Comment Number

11.	8.2.13.3 Adjust DG 1B VARs to ≈0 KVAR
Standard:	Operator takes the handswitch for DG 1B voltage regulator to LOWER
Cue:	None, self revealing
Comments	Examinee may go directly to Step 13 and take action to Open DG 1B Output Breaker and secure or Emergency Stop the DG. If so, N/A steps 10, 11 and 12, and continue at step 13. SAT ☐ UNSAT ☐ Comment Number

	12.	Annunciator for DG tripped comes in two minutes after the trouble alarm. (DG 1B does not actually trip)
Standard:		Operator notifies SRO of problem.
Cue:		If the equipment operator is called inform the RO "Diesel Generator coolant temperature is 206ºF and rising." If operator looks for direction from the SRO ask him for suggested action.
Comments		Examinee should go directly to Step 13 and take action to Open DG 1B Output Breaker and secure or Emergency Stop the DG. SAT ☐ UNSAT ☐ Comment Number

	***13.**	**8.2.13.4** **Open DG 1B Output Bkr, 1AP09EH and Shut down the Emergency Diesel Generator**
Standard:		Operator takes the handswitch for DG 1B output breaker to TRIP and observes GREEN light ON and takes the DG 1B Control switch to STOP. Or Takes the DG 1B Control switch to STOP and observes that the DG 1B Output Bkr tripped. Or Pushes the DG Emergency Stop Pushbutton and observes that the DG 1B stopped and the DG 1B Output Bkr tripped.
Cue:		None, self revealing
Comments		This step may be accomplished by any one of the methods listed above. SAT ☐ UNSAT ☐ Comment Number

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

The Diesel Generator 1B and its associated output breaker are tripped.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: TITLE

JPM Number: JPM414 Revision Number: 01

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

K/A System	K/A Number	Importance (RO/SRO)	
264000	A4.04	3.7	3.7

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, Rev. 49e

CPS 9080.02D001, Diesel Generator 1B Operability – Manual and Quick Start Data Sheet, Rev. 42c

CPS 3506.01C002, Diesel Generator 1B Pre-Start Checklist, Rev. 10

CPS 3506.01C005, Diesel Generator Start Log, Rev. 1

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

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

Comments: _____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

You are the B Operator.
The plant is in a normal electrical power lineup.
DG 1B was started per CPS 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, and is complete through step 8.2.11.

An Area Operator is standing by if needed.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

You are directed to parallel Diesel Generator 1B with Offsite Power and load to ~ 3700 KW, for a 1 hour run, per CPS 9080.02, beginning at step 8.2.12.

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CLINTON POWER STATION

Job Performance Measure

Reset a Reactor Scram per CPS No. 4100.01

JPM Number: JPM449

Revision Number: 00

Date: 02/24/2011

Developed By:	**T. Pickley**	**02/24/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	02/24/2011	Updated procedure revision and JPM number. Old JPM number: 41000101LSN01.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Reset the simulator to any IC.

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

2. Scram and then stabilize the plant, ensure level and pressure are stable.

3. Verify the "Raw Data" pushbutton **IS NOT** depressed.

4. Insert SRMs and IRMs

5. Downscale all IRMs

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

7. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- Scram has been reset IAW CPS No. 4100.01, REACTOR SCRAM

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None.

PROCEDURAL/REFERENCES:

- CPS No. 4100.01 rev.20a, REACTOR SCRAM

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- Provide candidate a copy of CPS No. 4100.01, REACTOR SCRAM.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are the "A" RO. A manual Reactor Scram was inserted due to a loss of "A" Turbine Driven Reactor Feed Pump.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Reset the Reactor Scram per CPS 4100.01, REACTOR SCRAM. Inform the CRS when the task is complete.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS No. 4100.01 REACTOR SCRAM

Appendix A: RESETTING SCRAM

A.1 IF Fuel failure occurred or is suspected,

THEN 1) Shut:

A) 1RE021, EQ Drain Sump Disch CNMT Inbd Vlv.
B) 1RE022, EQ Drain Sump Disch CNMT Outbd Vlv.

C) 1RF021, Flr Drain Sump Disch CNMT Inbd Vlv.
D) 1RF022, Flr Drain Sump Disch CNMT Outbd Vlv.

2) Refer to CPS 4010.01, Reactor Coolant High Activity.

Standard:	Determine that NO fuel failure is suspected or has occurred.
Cue:	When CRS is asked, respond that no fuel failure has occurred or is suspected.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

A.2 Request, then if possible, establish reactor level band of 30" to 39" Narrow Range to avoid subsequent low reactor level scrams.

Standard: Level band is requested

Cue: Establish a level band of 30" to 39"

Comments

SAT ☐ **UNSAT** ☐ **Comment Number**

***A.3 Place following bypass switches to BYPASS:**

- ❑ BYP DISCH VOL HI LVL DIV 1.
- ❑ BYP DISCH VOL HI LVL DIV 2.
- ❑ BYP DISCH VOL HI LVL DIV 3.
- ❑ BYP DISCH VOL HI LVL DIV 4.

Standard: DIV 1, 2, 3, and 4 DIS VOL HI WTR TRIP BYP annunciators are ON.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***A.4 When scram & ARI/RPT signals are clear, reset reactor scram and ARI/RPT trips.**

1. SCRAM

   Reset SCRAM logic by depressing RESET push-buttons:

   - ❑ [Div 1] NORMAL RESET SCRAM RESET.
   - ❑ [Div 2] NORMAL RESET SCRAM RESET.
   - ❑ [Div 3] NORMAL RESET SCRAM RESET.
   - ❑ [Div 4] NORMAL RESET SCRAM RESET.

2. ARI/RPT [2 minute seal-in]

   Reset ARI/RPT logic by depressing RESET push-buttons:

   - ❑ Scram Disch Vol Vent & Drn Vlv A.
   - ❑ Scram Disch Vol Vent & Drn Vlv B.

Standard:	1. Blue lights above the Manual Scram pushbuttons are ON. 2. ARI/RPT System 1 and 2 Initiated and Seal-In Active lights are OFF.
Cue:	
Comments	Examinee should verify that the ARI/RPT logic is not tripped and therefore is not critical for this JPM.

SAT ☐ UNSAT ☐ Comment Number _____

A.5 Verify following Scram Vent/Drain valves open.

- ❑ 1C11-F010, Scram Disch Vol Vent V.
- ❑ 1C11-F180, Scram Disch Vol Vent V.
- ❑ 1C11-F011, Scram Disch Vol Dr V.
- ❑ 1C11-F181, Scram Disch Vol Dr V.

Standard: Red lights for 1C11-F010/F011 & F180/F181 are ON.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

A.6 Verify all control rods are still fully inserted, and settled to '00' (full core display – raw data).

Standard: Selects "Raw Data" to verify all rods are fully inserted.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

A.7 Clear the RESET DRIFT on the P680 System Mode panel.

1. Depress the RESET DRIFT system mode push-button.
2. Verify:
   1) Display selection ROD DRIFT light clears.
   2) Annunciator 5006-4G: ROD DRIFT clears.

Standard: ROD DRIFT status light is OFF and ROD DRIFT annunciator is OFF.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

A.8 **WHEN** SCRAM discharge volume has drained below the high level alarm set point,
THEN Place following bypass switches to NORMAL:

- ❑ BYP DISCH VOL HI LVL DIV 1.
- ❑ BYP DISCH VOL HI LVL DIV 2.
- ❑ BYP DISCH VOL HI LVL DIV 3.
- ❑ BYP DISCH VOL HI LVL DIV 4.

Standard: Key lock switches returned to NORMAL and DIV 1 (2,3, and 4) DIS VOL HI WTR TRIP BYP annunciators are OFF.

Cue:

Comments From the time the operator depressed the reset pushbuttons, it may take up to 5 minutes for the Discharge Volume High Level Annunciators to clear.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

- Informs the CRS that the Scram has been reset.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Reset a Reactor Scram per CPS No. 4100.01

JPM Number: JPM227 Revision Number: 00

Task Number and Title: 410001.01 – Complete Control Room Actions To Respond To A Reactor Scram.

K/A System	K/A Number	Importance (RO/SRO)	
212000	A4.14	3.8	3.8

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS No. 4100.01 rev.20a, REACTOR SCRAM

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

You are the "A" RO. A manual Reactor Scram was inserted due to a loss of "A" Turbine Driven Reactor Feed Pump.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

Reset the Reactor Scram per CPS 4100.01, REACTOR SCRAM. Inform the CRS when the task is complete.

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CLINTON POWER STATION

Job Performance Measure

Shifting Off-Gas Post Treatment Process Radiation Monitors

JPM Number: JPM453

Revision Number: 00

Date: 04/29/11

Developed By:	**T. Pickley**	**04/29/11**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	04/29/11	Updated numbering convention and technically corrected. Old JPM number: 33150305.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Initialize to an IC where Off-Gas In Service.

2. Ensure that 1RIX-PR041 monitor is in service and 1RIX-PR035 monitor is in standby.

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

3. Ensure AR/PR Panel alarm is functioning.

4. Assign CAM1PR035TV_VALUE14, PR035 Ch 14 Input Value Override, to Remote 1 at a value of 20.

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

6. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- Off-Gas Post Treatment Process Radiation Monitor 1RIX-PR041 is back in service and 1RIX-PR035 is in standby per CPS No. 3315.03, RADIATION MONITORING (AR/PR).

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None.

PROCEDURAL/REFERENCES:

- CPS 3315.03, Rev. 5, RADIATION MONITORING (AR/PR)
- CPS 5140.46, Rev. 2, ARPR Annunciator Off-Gas Post-Treat PRM 1 1RIX-PR035

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.
- Provide candidate with a copy of CPS 3315.03 RADIATION MONITORING (AR/PR).

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

1. You are an extra RO and the plant is at rated power.
2. Radiation Protection has informed the Control Room that maintenance needs to be performed on 1RIX-PR041. This requires placing 1RIX-PR041 in standby and 1RIX-PR035 in service.

INITIATING CUE:

1. Place Off-Gas Post Treatment Radiation Monitor 1RIX-PR041 in standby and place 1RIX-PR035 in service per CPS 3315.03, RADIATION MONITORING step 8.5.2.1 through step 8.5.2.9.
2. All pre-job briefs are completed; the "B" RO has been briefed on Loss of Vacuum Off-Normal and is ready to respond to 1N66-F060 closure, if required.
3. Inform CRS when the task is complete.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CPS No. 3315.03, RADIATION MONITORING (AR/PR)

8.5.2 Shifting Off-Gas Post Treatment PRMs 1RIX-PR035 / 1RIX-PR041

NOTE	During monitor shifting both OG Post Treatment PRMs should be considered INOP. ODCM 3.9.1.
Standard:	Examinee may inform the CRS of the INOP note and the ODCM 3.9.1 reference.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

CAUTION

To prevent closure of 1N66-F060, Offgas System Isolation Valve, the following steps must be performed in sequence.

8.5.2.1 Direct Chemistry to verify or install a new particulate filter and iodine cartridge.

Standard: Verify new cartridge installed for 1RIX-PR035

Cue:
- CRS has reviewed and applied the ODCM actions.
- Respond that the particulate filter and iodine cartridge is new.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8.5.2.2 At the Channel Status screen for the monitor being placed in Standby, select STBY under the Standby Command.**

Standard: The examinee selects 'STBY' for monitor 1RIX-PR041.

Cue:

Comments
- STANDBY will be alarming after selecting STBY

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.5.2.3**	**At the Channel Status screen for the monitor being placed in Normal, start the sample pump by selecting ON under the Pump Command.**
Standard:	The examinee starts the sample pump for 1RIX-PR035 by selecting 'ON' under the pump command.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.4	At the Channel Status screen for the monitor in STANDBY, verify Channel 14 pressure: 1. Is indicating < 14.9 psia. 2. Is not DELETED.
Standard:	Examinee verifies indicating < 14.9 psia
Cue:	If pressure is not < 14.9 psia, cue examinee pressure is 14.1 psia and stable.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.5.2.5	At the Channel Status screen for monitor in STANDBY, observe sample flow (Ch 15) stabilizes (53 to 57 LPM).
Standard	Operator observes sample flow (Ch 15) is ~ 53 to 57 LPM
Cue:	If flow is not 53 to 57 LPM, cue examinee flow is 56 LPM.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.6	If flow adjustment is required, coordinate with Chemistry to adjust flow per CPS 9911.03, 1RIX-PR035/41 FILTER CHANGEOUT.
Standard	No action required
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.5.2.7	Verify as left flow is ~ 53 to 57 LPM.
Standard	Examinee observes flow is ~ 53 to 57 LPM
Cue:	If flow is not 53 to 57 LPM, cue examinee flow is 56 LPM.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.5.2.8**	**At Channel Status screen for monitor being placed in Normal, select NRML under the Standby Command.**
Standard	The examinee selects 'NRML' on the Channel Status screen for 1RIX-PR035.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

BEGIN ALTERNATE PATH

	1RIX-PR035 Channel 14 alarms high, enters 5140.46
Standard	Operator observes pressure is 20 psia.
Cue:	
Comments	Remote 1 to insert a high sample pressure. SAT ☐ UNSAT ☐ Comment Number _____

Channel #14 – Pressure	Per CPS 5140.46 notify Chemistry and swap to the redundant OG PRM.
Standard	Chemistry is notified to assist in swapping the redundant OG PRM and evaluate changing out the filter patch.
Cue:	If requested to evaluate changing out the filter patch, as Chemistry inform the examinee that a technician is standing by to assist and the filter patch change out will occur after the monitor swap. If requested, as CRS give the examinee permission to swap monitors.
Comments	CRS may be notified of CPS 5140.46 actions or permission may be requested to proceed with monitor swap. Radiation Monitor 1RIX-PR041 is the redundant OG PRM. SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.1	Contact Chemistry to verify or install a new particulate filter and iodine cartridge.
Standard:	Verify new cartridge installed for 1RIX-PR041
Cue:	• CRS has reviewed and applied the ODCM actions. • Respond that the cartridge does not need to be replaced.
Comments	"The "B" RO has been designated to pull 1N66-F060 fuse if required" was provided in the cue. SAT ☐ UNSAT ☐ Comment Number _____

***8.5.2.2**	**At the Channel Status screen for the monitor being placed in Standby, select STBY under the Standby Command.**
Standard:	The operator selects 'STBY' for monitor 1RIX-PR035.
Cue:	
Comments	▪ STANDBY will be alarming after selecting STBY SAT ☐ UNSAT ☐ Comment Number _____

***8.5.2.3**	**At the Channel Status screen for the monitor being placed in Normal, start the sample pump by selecting ON under the Pump Command.**
Standard:	The operator starts the sample pump for 1RIX-PR041 by selecting 'ON' under the pump command.
Cue:	
Comments	SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.4	At the Channel Status screen for the monitor in STANDBY, verify Channel 14 pressure: 1. Is indicating < 14.9 psia. 2. Is not DELETED.
Standard:	Operator verifies indicating < 14.9 psia
Cue:	If pressure is not < 14.9 psia, cue examinee pressure is 14.1 psia and stable.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.5	At the Channel Status screen for monitor in Standby, observe sample flow (Ch 15) stabilizes (53 to 57 LPM).
Standard	Operator observes sample flow (Ch 15) is ~ 53 to 57 LPM
Cue:	If flow is not 53 to 57 LPM, cue examinee flow is 56 LPM.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.6	If flow adjustment is required, coordinate with RP to adjust flow per CPS 7410.75, Local Operation of AR/PR Monitors.
Standard	No action required
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.7	Verify as left flow is ~ 53 to 57 LPM.
Standard	Operator observes flow is ~ 53 to 57 LPM
Cue:	If flow is not 53 to 57 LPM, cue examinee flow is 56 LPM.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.5.2.8**	**At the Channel Status screen for the monitor being placed in Normal, select NRML under the Standby Command.**
Standard	The operator selects 'NRML' on the Channel Status screen for 1RIX-PR041.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.5.2.9	Reset/verify reset all alarms for monitor placed in NRML.
Standard:	Ensure resets/verifies reset all alarms for 1RIX-PR041.
Cue:	
Comments	Examinee informs CRS the task is complete.
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

Off-Gas Post Treatment Process Radiation Monitor 1RIX-PR041 has been returned to service and 1RIX-PR035 is in standby IAW CPS No. 3315.03 rev. 3b, RADIATION MONITORING (AR/PR), steps 8.5.1 through step 8.5.8 are complete.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Shifting Off-Gas Post Treatment Process Radiation Monitors

JPM Number: JPM453 Revision Number: 01

Task Number and Title: 331503.05, Complete Control Room Actions to Perform Shifting Off-Gas Post Treatment Process Radiation Monitors (1RIX-PR035/1RIX-PR041).

K/A System	K/A Number	Importance (RO/SRO)	
272000	A1.01	3.2	3.2

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References:

- CPS No. 3315.03, Rev. 5, RADIATION MONITORING (AR/PR)

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

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

Comments: _____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

1. You are an extra RO and the plant is at rated power.
2. Radiation Protection has informed the Control Room that maintenance needs to be performed on 1RIX-PR041. This requires placing 1RIX-PR041 in standby and 1RIX-PR035 in service.

INITIATING CUE:

1. Place Off-Gas Post Treatment Radiation Monitor 1RIX-PR041 in standby and place 1RIX-PR035 in service per CPS 3315.03, RADIATION MONITORING step 8.5.2.1 through step 8.5.2.9.
2. All pre-job briefs are completed; the "B" RO has been briefed on Loss of Vacuum Off-Normal and is ready to respond to 1N66-F060 closure, if required.
3. Inform CRS when the task is complete.

Facility: Clinton Date of Examination: 8/22/2011

Exam Level: RO ☒ SRO-I ☐ SRO-U ☐ Operating Test Number: 2011-301

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a. 202001 A4.01 3.7 / JPM 448 Transfer RR pumps from Fast to Slow speed	M,S	1
b. 217000 A4.04 3.6 / JPM 204 Manually Startup RCIC System	A,D,EN,L,S	2
c. 239001 A4.01 4.2 / JPM 447 Perform RPS MSIV Channel Functional	D,S	3
d. 203000 A4.02 4.1 / JPM 440 SX Injection Through RHR B	A,N,L,S	4
e. 223002 A4.01 3.6 / JPM 452 Verify a Group 3 Isolation	A,N,EN,L,S	5
f. 264000 A4.04 3.7 / JPM 414 Parallel DG1B with Offsite Power	A,D,P,S	6
g. 212000 A4.14 3.8 / JPM 449 Reset a Reactor SCRAM per CPS No. 4100.01	D,L,S	7
h. 272000 A1.01 3.2 / JPM 453 Shifting Off-Gas Post Treatment Process Radiation Monitors	A,D,S	9
In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. 209001 2.4.34 4.2 / JPM 210 Manually Open the LPCS Injection Valve	D,E,L,R	2
j. 262002 2.1.30 4.4 / JPM 026 Manual Transfer of Distribution Panel Loads (NSPS Solenoid/RPS) from ALTERNATE POWER to INVERTER	D,R	6
k. 400000 A1.04 2.8 / JPM 031 Makeup of CCW Expansion Tank	D,R	8

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(EN)gineered safety feature	- / - / ≥ 1 (control room system
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: Clinton Date of Examination: 8/22/2011

Exam Level: RO ☐ SRO-I ☒ SRO-U ☐ Operating Test Number: 2011-301

Control Room Systems[@] (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a. 202001 A4.01 3.7 / JPM 448 Transfer RR pumps from Fast to Slow speed	M,S	1
b. 217000 A4.04 3.6 / JPM 204 Manually Startup RCIC System	A,D,EN,L,S	2
c. 239001 A4.01 4.0 / JPM 447 Perform RPS MSIV Channel Functional	D,S	3
d. 203000 A4.02 4.1 / JPM 440 SX Injection through RHR B	A,N,L,S	4
e. 223002 A4.01 3.5 / JPM 452 Verify a Group 3 Isolation	A,N,EN,L,S	5
f. 264000 A4.04 3.7 / JPM 414 Parallel DG1B with Offsite Power	A,D,P,S	6
g.		
h. 272000 A1.01 3.2 / JPM 453 Shifting Off-Gas Post Treatment Process Radiation Monitors	A,D,S	9
In-Plant Systems[@] (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)		
i. 209001 2.4.34 4.1 / JPM 210 Manually Open the LPCS Injection Valve	D,E,L,R	2
j. 262002 2.1.30 4.0 / JPM 026 Manual Transfer of Distribution Panel Loads (NSPS Solenoid/RPS) from ALTERNATE POWER to INVERTER	D,R	6
k. 400000 A1.04 2.8 / JPM 031 Makeup of CCW Expansion Tank	D,R	8

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(EN)gineered safety feature	- / - / ≥ 1 (control room system
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

Facility: Clinton Date of Examination: 8/22/2011

Exam Level: RO ☐ SRO-I ☐ SRO-U ☒ Operating Test Number: 2011-301

Control Room Systems@ (8 for RO); (7 for SRO-I); (2 or 3 for SRO-U, including 1 ESF)

System / JPM Title	Type Code*	Safety Function
a.		
b.		
c.		
d. 203000 A4.02 4.1 / JPM 440 SX Injection through RHR B	A,N,L,S	4
e. 223002 A4.01 3.5 / JPM 452 Verify a Group 3 Isolation	A,N,EN,L,S	5
f.		
g.		
h. 272000 A1.01 3.2 / JPM 453 Shifting Off-Gas Post Treatment Process Radiation Monitors	A,D,S	9

In-Plant Systems@ (3 for RO); (3 for SRO-I); (3 or 2 for SRO-U)

i. 209001 2.4.34 4.1 / JPM 210 Manually Open the LPCS Injection Valve	D,E,L,R	2
j. 262002 2.1.30 4.0 / JPM 026 Manual Transfer of Distribution Panel Loads (NSPS Solenoid/RPS) from ALTERNATE POWER to INVERTER	D,R	6
k.		

@ All RO and SRO-I control room (and in-plant) systems must be different and serve different safety functions; all 5 SRO-U systems must serve different safety functions; in-plant systems and functions may overlap those tested in the control room.

* Type Codes	Criteria for RO / SRO-I / SRO-U
(A)lternate path	4-6 / 4-6 / 2-3
(C)ontrol room	
(D)irect from bank	≤ 9 / ≤ 8 / ≤ 4
(E)mergency or abnormal in-plant	≥ 1 / ≥ 1 / ≥ 1
(EN)gineered safety feature	- / - / ≥ 1 (control room system
(L)ow-Power / Shutdown	≥ 1 / ≥ 1 / ≥ 1
(N)ew or (M)odified from bank including 1(A)	≥ 2 / ≥ 2 / ≥ 1
(P)revious 2 exams	≤ 3 / ≤ 3 / ≤ 2 (randomly selected)
(R)CA	≥ 1 / ≥ 1 / ≥ 1
(S)imulator	

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CLINTON POWER STATION

Job Performance Measure

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

JPM Number: JPM026

Revision Number: 02

Date: 02/18/2011

Developed By:	**T Pickley**	**02/18/2011**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

NOTE: All steps of this checklist should be performed upon initial validation.
Prior to JPM usage, revalidate JPM using steps 8 and 12 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, simulator, or other)
4. Initial setup conditions are identified.
5. Initiating cue (and terminating cue if required) 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 asterisk an (*)
8. Verify the procedure(s) referenced by this JPM reflects the current revision:
   Procedure_____ Rev:_____
   Procedure _____ Rev: _____
   Procedure _____ Rev: _____
9. Verify cues both verbal and visual are free of conflict.
10. Verify performance time is accurate
11. If the JPM cannot be performed as written with proper responses, then revise the JPM.
12. When JPM is initially validated, sign and date JPM cover page. Subsequent validations, sign and date below:

SME / Instructor	Date
SME / Instructor	Date
SME / Instructor	Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	06/11/07	New JPM.
01	08/31/10	Updated Format. Updated Procedure Revision Number.
02	02/18/11	Updated Procedure Revision Number and K/A.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

- Manually Transfer of Distribution Load Panel Loads (NSPS Solenoid) (RPS) FROM Alternate Power TO the Inverter IAW CPS 3509.01, Rev 020b, INSTRUMENT POWER SYSTEM (IP).

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 3509.01, Rev 020b, INSTRUMENT POWER SYSTEM (IP)

EVALUATOR INSTRUCTIONS:

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

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

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

INITIATING CUE:

CAUTION

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

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

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

CAUTION

When the Inverter Transfer Switch is moved from the BYPASS position, it moves from the BYPASS position to the OFF position before moving to the INVERTER position. This will initiate a HALF SCRAM if the other bus is energized or a FULL SCRAM if the other bus is deenergized. This could cause a single rod scram if the other solenoid is deenergized. Also, 120 VAC Output Bkr, CB-3 will trip OFF due to the Power Monitor.

CPS No. 3509.01, Instrument Power System (IP)
8.3.4 Manual Transfer of Distribution Panel Loads (NSPS Solenoid) (RPS) FROM Alternate Power TO the Inverter

	8.3.4.1	Verify LOSS OF SYNC lamp not illuminated.
Standard:	At RPS Solenoid Inverter "A" verifies the loss of sync lamp is not illuminated.	
Cue:	1.	Loss of sync lamp is not illuminated – (NOTE: Ensure operator is at RPS Solenoid Inverter "A".)
Comments		

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.3.4.2 **IF** MSIVs are open,
THEN Verify MSIV solenoids are reset using ammeters in NSPS Panels 1H13-P661 and P662. *«CM-5»*

Standard:	Verifies MSIV Solenoids are reset.
Cue:	1. Stated in the initial conditions all solenoids were reset.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.3.4.3 (Modes 1 and 2 only)
Check A and B solenoids for each control rod to ensure they are energized prior to transferring sources (provided adequate time is available for the check).
☞ Temperature should be greater than ambient.

Standard:	Ensures all control rods A and B solenoids are energized.
Cue:	1. Stated in the initial conditions all solenoids were energized.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.3.4.4**	**Place TRANSFER SWITCH to INVERTER.**
Standard:	At RPS Solenoid Inverter "A", places Transfer Switch To Inverter Position.
Cue:	1. Transfer switch is in the Inverter Position.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.3.4.5	Push and then release: Power Monitor RESET push-button.
Standard:	At RPS Solenoid Inverter "A", pushes then releases Power Monitor Reset push button.
Cue:	1. Power Monitor Reset pushbutton has been depressed then released.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.3.4.6	Verify power monitor alarms are out.
Standard:	At RPS Solenoid Inverter "A" power monitor, verifies alarms are out.
Cue:	1. Power Monitor alarms are out.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.3.4.7 Place 120 VAC OUTPUT BKR, CB-3 to ON.**

Standard:	At RPS Solenoid Inverter "A", places 120 vac Output Bkr, CB-3, to ON.
Cue:	1. 120 VAC Output Bkr, CB-3 is in the ON position.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.3.4.8 **IF** Mngt or NSED recommends,

THEN At 1C71-S005A(B), NSPS Sol Pwr Bypass Regul Xfmr:
Place AC INPUT (POWER) Bkr to OFF (down).

☞ 5006-3L(4L) will be in alarm when bkr is OFF.

Standard:	Leaves the Bypass Regul Transformer energized and in standby or asks the MCR for direction on what status to leave the Bypass Regul Transformer in.
Cue:	1. If requested, as the MCR direct the operator to leave the Bypass Regul Transformer energized and in standby. DO NOT turn the AC Input Bkr to OFF.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

CPS 3509.01, Instrument Power (IP), Step 8.3.4 complete.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

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

JPM Number: JPM026 Revision Number: 02

Task Number and Title: 350901.23, Manual Transfer of Distribution Load Panel Loads (NSPS Solenoid) (RPS) FROM Alternate Power TO the Inverter

K/A System	K/A Number	Importance (RO/SRO)	
262002	2.1.30	4.4	4.0

Suggested Testing Environment: Plant

Actual Testing Environment: ☐ Simulator ■ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 3509.01, Rev 020b, INSTRUMENT POWER SYSTEM (IP)

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

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

INITIATING CUE:

CAUTION

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

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

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CLINTON POWER STATION

Job Performance Measure

Manual Makeup of CCW Expansion Tank

JPM Number: JPM031

Revision Number: 01

Date: 02/18/11

Developed By:	**T Pickley**	**02/18/11**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	06/12/07	New JPM.
01	02/18/11	Updated for procedure revision.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

- Manual Makeup of CCW Expansion Tank IAW CPS 3203.01, COMPONENT COOLING WATER (CC), Revision 32e.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 3203.01, COMPONENT COOLING WATER (CC), Revision 32e

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- Do NOT allow examinee to shine any type light into a panel.
- All pre-job briefings are completed.
- Provide candidate a copy of CPS 3203.01 Component Cooling Water (CC).

Clinton Power Station
Job Performance Measure (JPM)

Initial Conditions

- Plant is at rated power.

Initiating Cue

CAUTION

- All pre-job briefings are completed.
- No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur. (This statement should be removed if this is a Simulator JPM)
- Do NOT shine any type light into a panel.

- You have communications established with the MCR and have been directed to perform Manual Makeup of CCW Expansion Tank per section 8.1.4 of CPS 3203.01.
- The 'B' RO will provide level indication via the PPC.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

8.1.4 Manual Makeup of CCW Expansion Tank

NOTE

CCW Expansion Tank level should normally be maintained between 105" - 117" (water level should be in second sight glass from top of level gauge) and CCW pump suction pressure, as indicated on idle pump discharge pressure gauge, should be ~ 14 psig.

***8.1.4.1 Restore level to the upper end of the control band (105" - 117") by opening 1CC092, CCW Expansion Tank Makeup Valve Bypass, then shut 1CC092.**

Standard:
- Student correctly identifies 1CC092.
- The student correctly simulates opening 1CC092 by simulating turning the handwheel in the counter-clockwise direction
- Simulates closing 1CC092 by simulating turning the handwheel in the clockwise direction.

Cue:
- If asked, initial level (MCR) is "105 inches" and target is "115 inches".
- If asked, "Idle pump discharge pressure gage reads 10 psig."(12 psig after 1CC092 is shut)
- When asked state, "Valve is moving in the direction you have indicated."
- As the 'B' RO, provide indication that level is rising ("106" wait 5 seconds, "107" wait 5 seconds, "108" wait five seconds…) until candidate starts shutting 1CC092.

Comments: If asked, Local level is "low in the second sight glass from top of level gage."

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.1.4.2** **IF** **Tank level is 105" - 117", and Suction pressure is < 14 psig,**
THEN **Pressurize tank with nitrogen by:**

1) Set the CCW Expansion Tank nitrogen bottle regulator to approximately 20 psig.

2) Slowly open 1CC249, CCW Expansion Tank Air Load Isol Valve.

3) Shut 1CC249 when non-operating CCW pump discharge pressure is ~ 14 psig.

4) Fully back out the CCW Expansion Tank nitrogen bottle regulator.

Standard:

- The student sets the nitrogen bottle regulator to approximately 20 psig.
- The student correctly identifies 1CC249.
- The student simulates opening 1CC249 by simulating turning the handwheel in the counter-clockwise direction
- Then closing 1CC249 by simulating turning the handwheel in the clockwise direction.
- The student fully backs out the CCW Expansion Tank nitrogen bottle regulator.

Cue:

NOTE TO EXAMINER: The procedure does not state to unisolate the bottle. If the examinee does not simulate opening the bottle isolation, the cue will be 0 psig until the bottle isolation is simulated open.

- When asked, state " The regulator is set at 20 psig"
- When asked, state "Valve you indicated is moving in the direction you indicated".
- When appropriate, provide feedback the non-operating CCW pump discharge pressure is 14 psig.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

CPS 3203.01, Section 8.1.4, Step 8.1.4.1 and 8.1.4.2 complete.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Manual Makeup of CCW Expansion Tank

JPM Number: JPM031 Revision Number: 01

Task Number and Title: 320301.18 - Respond to Abnormal Level in the CCW Expansion Tank

K/A System	K/A Number	Importance (RO/SRO)	
400000	A1.04	2.8	2.8

Suggested Testing Environment: Plant

Actual Testing Environment: ☐ Simulator ■ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 3203.01, COMPONENT COOLING WATER (CC), Revision 32e.

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

- Plant is at rated power.

Initiating Cue

CAUTION

- All pre-job briefings are completed.
- No equipment or controls will be manipulated during this evaluation, only **Simulated** Actions will occur. (This statement should be removed if this is a Simulator JPM)
- Do NOT shine any type light into a panel.

- You have communications established with the MCR and have been directed to perform Manual Makeup of CCW Expansion Tank per section 8.1.4 of CPS 3203.01.

- The 'B' RO will provide level indication via the PPC.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Manually Open the LPCS Injection Valve (1E21-F005)

JPM Number: JPM210

Revision Number: 01

Date: 01/18/2011

Developed By:	**T. Pickley**	**01/18/11**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:	**.**	
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	06/19/2007	Updated numbering convention. Old JPM number: 99999923NSN02.
01	02/18/2011	Updated for procedure revision.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

Override and open 1E21-F005, LPCS Injection Valve.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

None

PROCEDURAL/REFERENCES:

OP-CL-108-101-1001, Rev 9, General Equipment Operating Requirements

EVALUATOR INSTRUCTIONS:

Amplifying cues are provided within the JPM steps.

All pre-job briefings are completed.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

A major Loss of Coolant Accident has occurred. LPCS has automatically started and is needed for injection but the LPCS Injection Valve, 1E21-F005, has failed to open. The 1E21-F005 breaker at AB MCC 1A3 (1AP74E) is OFF.

INITIATING CUE:

CAUTION

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

You are the C-Area Operator and are directed to manually (locally) open the LPCS Injection Valve, 1E21-F005.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

		Locates LPCS TO CONTAINMENT OUTBOARD ISOLATION VALVE, 1E21-F005.
Standard:		Locates 1E21-F005, and verifies correct valve is selected by reading valve label. If the valve is within a Contamination Zone the operator states valve is located on 755' FB, east side.
Cue:		
Comments		Located on 755' FB, east side. SAT ☐ UNSAT ☐ Comment Number _____ **Note to Evaluator:** If 1E21-F005 is within a Contamination Zone, take operator to 1SX105B "Control Room HVAC 1B Makeup Deluge", 825' CB to simulate operation of a motor operated valve.
	*	**Simulates engaging manual declutch lever on 1E21-F005 by pulling down on lever.**
Standard:		Declutch lever is pulled in the downward direction until resting against the stop.
Cue:		Declutch lever has stopped moving.
Comments		The declutch lever has an arrow cast in the sided of the lever indicating in which direction to pull the lever. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	*	**Open 1E21-F005.**
Standard:		Simulates turning 1E21-F005 hand wheel in the COUNTERCLOCKWISE direction until valve is full open.
Cue:		• Inform examinee of flow noise as valve starts to come off the closed seat. • Valve stem is moving up. • After approx. 30 seconds inform examinee that the hand wheel no longer turns.
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The LPCS Injection Shutoff Valve, 1E21-F005 is "OPEN".

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Manually Open the LPCS Injection Valve (1E21-F005)

JPM Number: JPM210 Revision Number: 01

Task Number and Title: 999999.23, Operate Motor Operated Valves (MOVs) Manually

K/A System	K/A Number	Importance (RO/SRO)	
209001	2.4.34	4.2	4.1

Suggested Testing Environment: Plant

Actual Testing Environment: ☐ Simulator ■ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: OP-CL-108-101-1001, Rev 9, General Equipment Operating Requirements

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

A major Loss of Coolant Accident has occurred. LPCS has automatically started and is needed for injection but the LPCS Injection Valve, 1E21-F005, has failed to open. The 1E21-F005 breaker at AB MCC 1A3 (1AP74E) is OFF.

Initiating Cue

CAUTION

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

You are the C-Area Operator and are directed to manually (locally) open the LPCS Injection Valve, 1E21-F005.