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CLINTON POWER STATION

Job Performance Measure

MCR 'B' RO panel walk downs

JPM Number: 412

Revision Number: 00

Date: 08/31/2010

Developed By:	**Tallion French**	**08/31/2010**
	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
00	08/31/10	New JPM

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. Reset the simulator to IC-01.

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

2. Load the log taking JPM 412 lesson on the simulator.

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 OP-AA-101-111 Roles and Responsibilities of On-shift Personnel.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Log sheet for panel walk down.
- Red pen available

PROCEDURAL/REFERENCES:

- Log sheet

EVALUATOR INSTRUCTIONS:

Instructions for evaluator, they should know/understand during JPM. The following are examples:

- Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

The plant is operating at 97% power.

Clinton Power Station
Job Performance Measure (JPM)

INITIATING CUE:

CAUTION

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

You are the 'B' RO complete hourly panel walk down.

Inform the CRS when you have completed the panel walk down and give the CRS the log sheet for review.

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 the MC and CY tank capacities are less than 66% combined**
Standard:	Logs are circled in red or CRS informed	
Cue:	1. None	
Comments		
	SAT ☐	UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

2)	Identifies the turbine generator gas pressure is less than 75 psig
Standard:	Notifies CRS need to add hydrogen to main generator
Cue:	IF asked: Another RO will dispatch area operator to add H2 to the generator.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***3)**	**Identifies the FC pump amps are in the red zone of the meter**
Standard:	Logs are circled in red or CRS informed
Cue:	None
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***4)**	**ADS air pressures are out of band low**
Standard:	Logs are circled in red or CRS informed
Cue:	None
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Logs are completed and deficiencies identified.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: MCR 'B' RO panel walk downs

JPM Number: JPM 412 Revision Number: 00

Task Number and Title: OP-AA-101-111 Roles and Responsibilities of On-shift Personnel

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

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: OP-AA-101-111 Roles and Responsibilities of On-shift Personnel.

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% 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 are the 'B' RO complete hourly panel walk down.

Inform the CRS when you have completed the panel walk down and give the CRS the log sheet for review.

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CLINTON POWER STATION

Job Performance Measure

License Maintenance Check

JPM Number: 409

Revision Number: 00

Date: 08/31/2010

Developed By:	**Tallion French**	**08/31/2010**
	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	8/31/2010	New JPM

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. Admin JPM.

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

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

3. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

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

TASK STANDARDS:

- The evolution completed IAW OP-AA-105-102 Rev.9.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Attachment 1

PROCEDURAL/REFERENCES:

- OP-AA-105-102 Rev.9.

EVALUATOR INSTRUCTIONS:

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

INITIAL CONDITIONS:

The plant is operating at 98% power.

Today is 1/31/2011.

Clinton Power Station
Job Performance Measure (JPM)

You have been asked to complete a license maintenance check on yourself prior to going home on your relief week IAW OP-AA-105-102 and the ESOMS log attachment.

Determine if you will be proficient for the next quarter. If not, determine the number of watches required to maintain proficiency. Based on the current report, on what day will your license be active until.

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)**	**Candidate determines the minimum hours of watch standing for credit for proficiency has NOT been met.**
Standard:		**Shift:** as defined for maintaining an active license must be a minimum of 8 hours in duration. **MAINTAIN** an active license by actively performing the functions of RO, SRO, or SROL. RO licenses by performing the duties of the Unit RO and/or Unit Assist RO for a minimum of seven 8-hour or five 12-hour shifts per calendar quarter, including turnover to the next shift. The second Unit Assist RO (fourth RO) can receive watchstanding credit because duties are analogous to the duties of the first Unit Assist RO (third RO - who is required by Technical Specifications).
Cue:		
Comments		
		SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	***2) Candidate determines they need total of twenty more hours of watch standing in order to maintain their license active. Any one of the following combinations is acceptable.** **- two twelve hours shifts** **- one twelve hour and one eight hour** **- three eight hour shifts**
Standard:	The hours that are less than 8 hours do not count and the candidate determines that they need a minimum of two shifts before the quarter expires to keep the license active.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***3)**	**Candidate determines their license will be active until 31 March 2011.**
Standard:	If the candidates determines all hours count they would conclude that their license would be active until Q-2 June 30th 2011.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Candidate has determined based on the log report from ESOMS that they need two more shifts.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: License Maintenance Check

JPM Number: 409 Revision Number: 00

Task Number and Title:LP85801.2.1.4 Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no solo" operation, maintenance of active license status, 10CFR55, etc.

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.1.4	3.3	

Suggested Testing Environment: Class Room

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 14 minutes Actual Time Used: _____ minutes

References: OP-AA-105-102 Rev.9

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 98% power.

Today is 1/31/2011.

Initiating Cue

You have been asked to complete a license maintenance check on yourself prior to going home on your relief week IAW OP-AA-105-102 and the ESOMS log attachment.

Determine if you will be proficient for the next quarter. If not, determine the number of watches required to maintain proficiency. Based on the current report, on what day will your license be active until.

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CLINTON POWER STATION

Job Performance Measure

Print Reading/Tag out verification

JPM Number: JPM411

Revision Number: 00

Date: 08/31/2010

Developed By:	**Tallion French**	**08/31/10**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

JPM Number: JPM411

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	8/31/10	New JPM

JPM Number: JPM411

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 Attachment 14 Part 1 and 2.

PROCEDURAL/REFERENCES:

- The evolution completed IAW with OP-AA-109-101 R3.

EVALUATOR INSTRUCTIONS:

- Passport and EDMS are down.

JPM Number: JPM411

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

The plant is at rated conditions and CCW pump B needs to be tagged out for oil change. Passport and EDMS are down.

INITIATING CUE:

CAUTION

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

Determine if the provided clearance order has adequate boundaries. Perform independent technical review of the worker tag out.

START TIME: _____

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

1) Verifies 1HSCC005 in correct position

Standard: Determines that 1HSC005 is in the correct position Pull to Lock (PTL)

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***2)**	**Verifies 1CC002A is the incorrect component.**
Standard:	Determines that 1CC002A is incorrect and should be 1CC002B
Cue:	Examinee may need to be told to complete the independent technical review.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

3)	Verifies 1CC225B is the correct component.
Standard:	Verifies 1CC225B is the correct component.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***4)**	**Verifies 1AP08EN is NOT correct position.**
Standard:	Determines that 1AP08EN is NOT in the correct position RACKED OUT. L/O is locked open.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Applicant submits his attachment 14 parts one and two of OP-AA-109-101. Based on the wrong breaker position and wrong valve.

STOP TIME: _____

JPM Number: JPM411

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: JPM411 Revision Number: 00

Task Number and Title: LP85146.01.01 Given a situation requiring the use of the following documents be able to recognize when they are required to be referenced while operating the plant performing an out of service, or on an exam in accordance with the student text:

.1) Mechanical Drawings

.2) Electrical Drawings

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.2.13	4.1	

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: EO2-1CC99 sheet 2

MO5-1032 sheet 1

JPM Number: JPM411

Clinton Power Station
Job Performance Measure (JPM)

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 CCW pump B needs to be tagged out for oil change. Passport and EDMS are down.

CAUTION

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

Initiating Cue

Determine if the provided clearance order has adequate boundaries. Perform independent technical review of the worker tag out.

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CLINTON POWER STATION

Job Performance Measure

Read Survey Map

JPM Number: 410

Revision Number: 00

Date: 08/31/2010

Developed By:	**Tallion French**	**08/31/2010**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

JPM Number: 410
Clinton Power Station
Job Performance Measure (JPM)

Revision	Date	Description
00	08/31/10	New 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. Attachment 2 is the Question sheet.

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

5. This completes the setup for this JPM.

JPM Number: 410
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.

INITIAL CONDITIONS:

The plant is operating at 97%.

JPM Number: 410
Clinton Power Station
Job Performance Measure (JPM)

INITIATING CUE:

Your preparing to enter the RT ‘B’ Pump room to vent RT Pump per 3303.01 section 8.1.4.3.

You have been tasked with reviewing the survey map and identifying the items listed on Attachment 2 and determining your dose if you stay by RT pump ‘B’ valve 1G33F010B for 4 minutes.

START TIME: _____

JPM Number: 410
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?

Standard:

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

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

Standard:

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

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

Standard:

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***4)** Where is the low dose waiting area after entering the HCA?

Standard:

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

5) What is the dose for venting RT pump 'B'?

Standard:

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The candidate turns in the answer sheet.

STOP TIME: _____

What is the highest contamination level?	**15K**
What is the highest contact radiation level ?	**700 mr on the 1G33F005B**
What is the highest general area dose rate level?	**60 mr**
Where is the low dose waiting area after entering the HCA?	**Z—120 at 8 mr**
What is the estimated dose for venting RT pump 'B' ?	**4min/60minX60mr/hr=4mr**

JPM Number: 410
Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Read Survey Map

JPM Number: 410 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	

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: 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

Your preparing to enter the RT ‘B’ Pump room to vent RT Pump per 3303.01 section 8.1.4.3.

You have been tasked with reviewing the survey map and identifying the items listed on Attachment 2 and determining your dose if you stay by RT pump ‘B’ valve 1G33F010B for 4 minutes.

Attachment 2

What is the highest contamination level?	
What is the highest contact radiation level level?	
What is the highest general area dose rate level?	
Where is the low dose waiting area after entering the HCA?	
What is the estimated dose for venting RT pump ‘B’ ?	

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CLINTON POWER STATION

Job Performance Measure

Bypass the CRD Suction Filters per CPS No. 4411.03

JPM Number: JPM054

Revision Number: 00

Date: 08/14/2008

Developed By:	**Tony Jennings**	**8/14/08**
	Instructor	**Date**
Validated By:	**Carlos Leach**	**9/3/08**
	SME or Instructor	**Date**
Reviewed By:	**Tom Chalmers**	**9/19/08**
	Operations Representative	**Date**
Approved By:	**Mark Otten**	**9/23/08**
	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	8/14/08	JPM renumbered. Replaces 44110311NSN01. Updated procedure references.

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:

- 1C11-F116 and F117, CRD Suction Filter Bypass Valves, are open IAW CPS No. 4411.03, Rev 7, INJECTION/FLOODING SOURCES

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS No. 4411.03, Rev 7, INJECTION/FLOODING SOURCES

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.

INITIAL CONDITIONS:

An ATWS is in progress. Power is 4%. A second CRD Pump is being started to insert control rods. Per CPS 4411.03 bypass the CRD suction filters.

Clinton Power Station
Job Performance Measure (JPM)

INITIATING CUE:

CAUTION

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

You are directed by the MCR to open the CRD Suction Filter Bypass Valves, 1C11-F116 and 1C11-F117 per CPS 4411.03 step 2.4.1.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS
NOTE: Steps 1 and 2 can be performed in any order.

CPS 4411.03, Injection / Flooding Sources

***2.4.1 Open 1C11-F116 Suction Filter Bypass. (TB 712', D.5-120)**

Standard:	Operator locates 1C11-F116 Suction Filter Bypass (TB 712', D.5-120) and simulates turning handwheel in the COUNTERCLOCKWISE direction.
Cue:	Valve is in the position you've described.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***2.4.1 Open 1C11-F117 Suction Filter Bypass. (TB 712' , D.5-120)**

Standard:	Operator locates 1C11-F117 Suction Filter Bypass (TB 712', D.5-120) and simulates turning handwheel in the COUNTERCLOCKWISE direction.
Cue:	Valve is in the position you've described.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

CRD Suction Filter Bypass Valves, 1C11-F116 and F117, are open.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Bypass the CRD Suction Filters per CPS No. 4411.03.

JPM Number JPM054 Revision Number:00

Task Number and Title: 441103.24 Bypass RD Suction Filters

K/A System	K/A Number	Importance (RO/SRO)	
295031	EA 1.10	3.6	

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: 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

An ATWS is in progress. Power is 4%. A second CRD Pump is being started to insert control rods. Per CPS 4411.03 bypass the CRD suction filters.

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 by the MCR to open the CRD Suction Filter Bypass Valves, 1C11-F116 and 1C11-F117 per CPS 4411.03 step 2.4.1.

Exelon Nuclear

CLINTON POWER STATION

Job Performance Measure

VENT Primary Containment
TO SPENT FUEL POOL
USING FC RETURN HEADER

JPM Number: JPM022

Revision Number: 00

Date: 03/30/2007

Developed By:	**G. D. Setser**	**07/23/07**
	Instructor	**Date**
Validated By:	**T. Pickley**	**7/1/2009**
	SME or Instructor	**Date**
Reviewed By:	**J. Lucas**	**7/1/2009**
	Operations Representative	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	03/30/07	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.

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

TASK STANDARDS:

- Lineup D of CPS 4411.06 complete.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

- CPS 4411.06, Emergency Containment Venting, Purging, and Vacuum Relief, rev. 4b.

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- Provide examinee a marked-up copy of CPS 4411.06 showing steps 2.5.1, 2.5.2, and 2.5.3 completed.
- Do NOT allow examinee to shine any type light into a panel.
- All pre-job briefings are completed including RP.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

- The plant has experienced a high containment pressure condition.
- Preparations are underway to initiate venting containment to the spent fuel pool using the FC return header IAW CPS 4411.06 section 2.5.
- Steps 2.5.1, 2.5.2, and 2.5.3 are complete.

Initiating Cue

CAUTION

- All pre-job briefings are completed including RP.
- 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 have been directed by the MCR to perform Lineup D, Vent To Spent Fuel Pool Using FC Return Header (step 2.5.4 of CPS 4411.06)

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

4411.06 Lineup D, VENT TO SPENT FUEL USING FC RETURN HEADER

Fuel Bldg 737', AH-121 (By CRD Rebuild Room)

*** Valve 1FC012A**	**CNMT Pools Drn to Surge Tank**
	Position: SHUT
Standard:	Simulates removing locking pin and shutting 1FC012A
Cue:	• Locking pin is removed. • Valve operating handle in the position you have indicated.

NOTE

Valve appears in other lineups and may already be repositioned as needed. If 1FC012A is already in shut position, provide initial indication to performer that actual position is OPEN with locking pin installed to allow for performance (simulated) of this step.

Do NOT allow examinee to reposition valve –
SIMULATED ACTIONS ONLY

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

*** Valve 1FC012B**	**CNMT Pools Drn to Spent Fuel Pool** **Position: OPEN**
Standard:	Simulates opening 1FC012B.
Cue:	• Valve operating handle is in the position you have indicated. Note: Moves Counter Clockwise to open Provide cue that there is no reason to believe remainder of components are not in the necessary positions.

NOTE
Do NOT allow examinee to reposition valve –
SIMULATED ACTIONS ONLY

Comments:

SAT ☐ UNSAT ☐ Comment Number _____

NOTE

The remaining lineup consists of components which are normally in the position required for the performance of this evolution.

Unless there is reason to believe these components are not in the necessary position, then the remainder of this lineup need not be performed

Provide cue that there is no reason to believe remainder of components are not in the necessary positions.

TERMINATING CUES:

1FC012A is SHUT, 1FC012B is OPEN

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: VENT Primary Containment TO SPENT FUEL POOL USING FC RETURN HEADER

JPM Number: JPM022 Revision Number: 00

Task Number and Title: 441106.04 VENT Primary Containment TO SPENT FUEL POOL USING FC RETURN HEADER

K/A System	K/A Number	Importance (RO/SRO)	
295024	EA1.18	3.6	3.6

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 4411.06, Emergency Containment Venting, Purging, and Vacuum Relief – LINEUP D, rev. 4b

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 has experienced a high containment pressure condition.
- Preparations are underway to initiate venting containment to the spent fuel pool using the FC return header IAW CPS 4411.06 section 2.5.
- Steps 2.5.1, 2.5.2, and 2.5.3 are complete.

Initiating Cue

CAUTION

- All pre-job briefings are completed including RP.
- 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 have been directed by the MCR to perform Lineup D, Vent To Spent Fuel Pool Using FC Return Header (step 2.5.4 of CPS 4411.06)

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

RESTORE UPS BUS 1B

JPM Number: JPM252

Revision Number: 00

Date: 08/20/08

Developed By:	**Craven W. Mitchell/George Vaught**	**08/20/08**
	Instructor	**Date**
Validated By:	**M. L. Bensen**	**09/22/08**
	SME or Instructor	**Date**
Reviewed By:	**R. R. Kiss**	**09/22/08**
	Operations Representative	**Date**
Approved By:	**Mark Otten /S/**	**10/31/08**
	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	08/20/08	Updated numbering convention and technically corrected. Old JPM number: 35090112NSN01.

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 1B UPS static inverter is operating, supplying the distribution panel.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Gloves

PROCEDURAL/REFERENCES:

- CPS No. 3509.01C006, Rev. 6a, UPS 1B BUS (1IP07E) OUTAGE
- CPS No. 3509.01 Rev 20a INSTRUMENT POWER SYSTEM
- SA-AA-129, Rev. 004, ELECTRICAL SAFETY

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.
- For proper Personnel Protective Equipment refer to SA-AA-129, ELECTRICAL SAFETY.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are an extra Operator.

Recovery of 1B UPS Bus is in progress from a maintenance outage.

INITIATING CUE:

Perform steps 8.2.3 through 8.2.6 of CPS 3509.01C006 to restore 1B UPS Bus.

All prerequisites are complete.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

8.2.3.1 Verify Manual Bypass Switch is in the NORMAL TO LOAD position.

Standard: Examinee verifies the Transfer Switch in the NORMAL TO LOAD position.

Cue: Component is in the position as described.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.2.3.2 Verify Auto-Retransfer Switch is in OFF.

Standard: Examinee verifies Auto-Retransfer Switch is in OFF.

Cue: Component is in the position as described.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.3.3**	**Depress the Pre Charge Pushbutton, then release when the PRE-CHARGE lamp is lit.**
Standard:	Examinee depresses pushbutton, until red light ON.
Cue:	Inform examinee 5 seconds after the examinee simulates depressing the pushbutton that the pre-charge lamp is lit. If asked, inform examinee light has been fixed.
Comments	An actual issue exists with the lamp will not illuminate.
	SAT ☐ UNSAT ☐ Comment Number _____

***8.2.3.4**	**Position Battery Input circuit breaker (CB-1) to ON**.
Standard:	Examinee simulates closing the Input circuit breaker (CB-1)
Cue:	Component is in the position as described. If asked or looks at meters for response, DC Volts ~130V and low DC Amps indicated on DC Input Meters above CB-1.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.2.3.5**	**Position Inverter Output circuit breaker (CB-2) to ON**.
Standard:	Examinee simulates closing the Output power circuit breaker (CB-2)
Cue:	Component is in the position as described. Inverter Output Meters indicate 120VAC and low amps and 60 Hz frequency
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.3.6**	**Position the Alternate Source AC Input circuit breaker (CB-4) to ON.**
Standard:	Examinee simulates closing the Alternate Source circuit breaker (CB-4)
Cue:	Component is in the position as described. Alternate Source AC Input indicates ~480VAC.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2.3.7	Verify IN SYNC lamp is on.
Standard:	Examinee verifies the IN SYNC lamp is ON.
Cue:	Component is indicating as described.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.3.8**	**Press the "INVERTER TO LOAD" push-button.** ▪ **Verify INVERTER SUPPLYING LOAD lamp is on.** ▪ **Verify ALTERNATE SOURCE SUPPLYING LOAD lamp is off.**
Standard:	Examinee simulates pressing the pushbutton. Verifies INVERTER lamp is ON, ALTERNATE lamp is OFF.
Cue:	The INVERTER lamp is ON. ALTERNATE lamp is OFF.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.2.3.9	Place Auto-Retransfer switch to ON.
Standard:	Examinee simulates placing the switch to ON.
Cue:	Component is in the position as described.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

8.2.4	IF UPS 1B Inverter is not available, THEN Reenergize the 1B Bus using the Alternate Power Source via the Manual Bypass Switch.
Standard:	No action required.
Cue:	If asked, inform examinee UPS 1B Inverter is available.
Comments	

8.2.5 Verify following meters indicate the values listed.

DC INPUT	Minimal DC AMPERES
DC INPUT (Battery Voltage Dependent)	~ 118 to 135 DC VOLTS
INVERTER OUTPUT	Minimal AC AMPERES until load is switched to the inverter
INVERTER OUTPUT	115 to 125 VAC
INVERTER OUTPUT	59 to 61 HERTZ
ALTERNATE SOURCE AC INPUT	432 to 528 VAC
DISTRIBUTION PANEL INPUT	Minimal AC AMPERES until load is switched to the inverter

Following is the only indication to check when UPS 1B Distribution Bus is powered from the Alternate Power Source.

DISTRIBUTION PANEL INPUT	117 to 123 VAC

Standard: Examinee verifies the meters indicate within the values listed.

Cue: Meters are reading within the values listed in the table.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.2.6**	**At the UPS Cabinet 1B, 1IP07E, Distribution Panel 1B, place applicable fused circuits 901 thru 932 in ON**
Standard:	Examinee simulates placing fused circuits 901 thru 932 (except for "N/A" breakers) in ON.
Cue:	After examinee locates correct distribution panel 1B door, hand Attachment 1 of JPM to examinee and tell him this is how it looks inside with all 32 breakers in the OFF position. After examinee demonstrates placing the first breaker to ON, cue that the rest of the breakers have been placed to ON.
Comments	Picture only shows 24 of 32 breakers. If examinee has difficulty reading Attachment 1, inform him the left row are Circuits 901, 903, 905, etc. and the right row are Circuits 902, 904, 906, etc. SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Simulates reporting to the MCR that steps 8.2.3 through 8.2.6 of CPS 3509.01C006 for restoring 1B UPS Bus are complete.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Energize UPS Bus 1B per CPS No. 3509.01C006

JPM Number: JPM252 Revision Number: 00

Task Number and Title: 350901.12 – Complete in plant actions to perform UPS Bus 1A(1B)

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

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: 12 minutes Actual Time Used: _____ minutes

References:

- CPS No. 3509.01C06, Rev. 6a, UPS 1B BUS (1IP07E) OUTAGE
- SA-AA-129, Rev. 004, ELECTRICAL SAFETY*

  Note: Copies of procedures with asterick(s) are not required to be copied for the exam.

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: _____

_____

_____

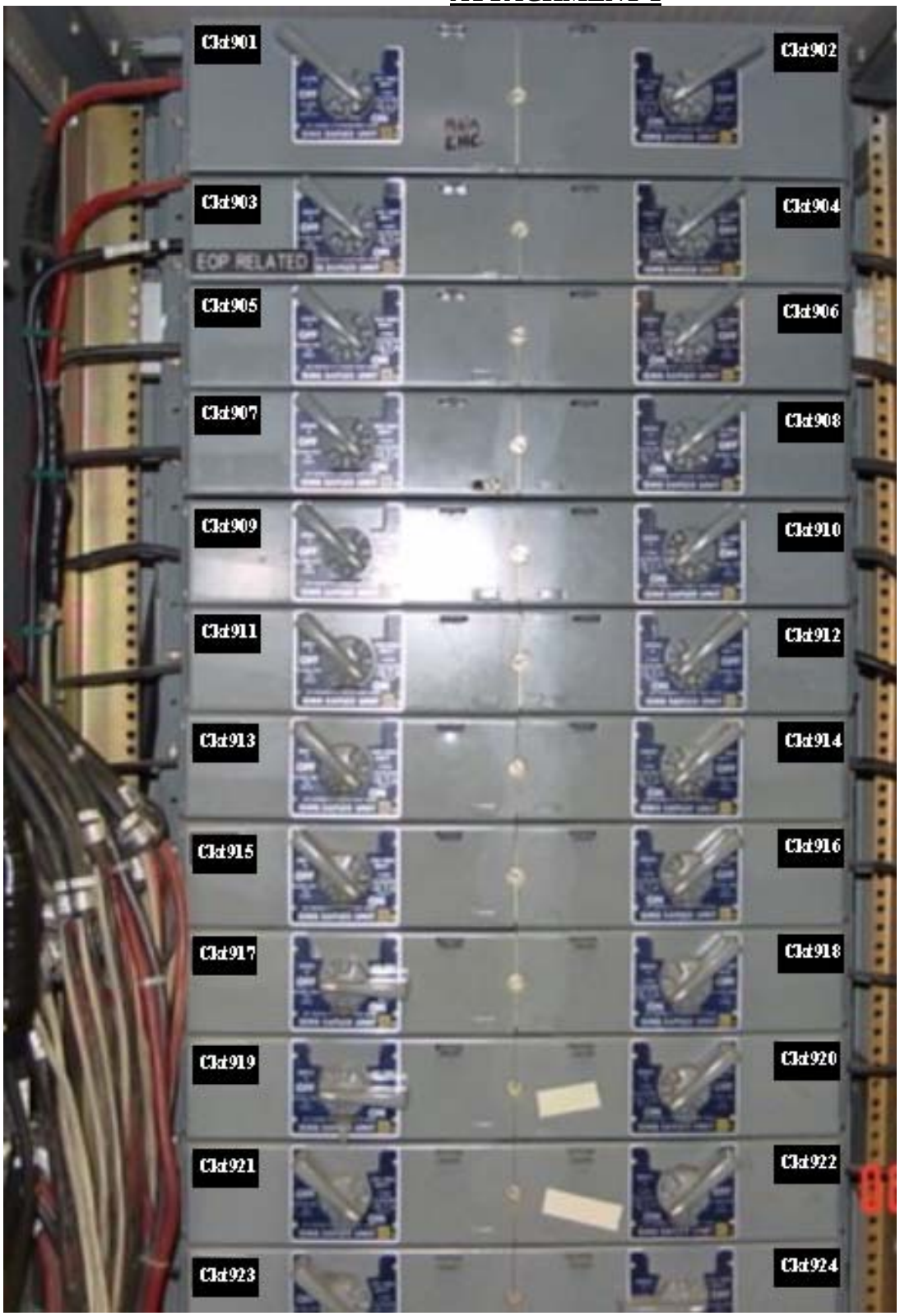
_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Clinton Power Station
Job Performance Measure (JPM)

ATTACHMENT 1



Clinton Power Station
Job Performance Measure (JPM)

Initial Conditions

You are an extra Operator.

Recovery of 1B UPS Bus is in progress from a maintenance outage.

Initiating Cue

Perform steps 8.2.3 through 8.2.6 of CPS 3509.01C006 to restore 1B UPS Bus.

All prerequisites are complete.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Control Rod Timing Restoration

JPM Number: 413

Revision Number: 00

Date: 08/31/10

Developed By:	**Tallion French**	**08/31/10**
	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

JPM Number: 413

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
Rev 00	08/31/10	New JPM

JPM Number: 413

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. Reset the simulator to IC-01.

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

2. Drive a peripheral rod to 00.

3. Start RCIS lesson plan this will cause the PIP for the rod to fail causing the operator to have to enter substitute data to with draw the control rod to position 48.

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

5. This completes the setup for this JPM.

JPM Number: 413

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:

- 3304.02 Rod Control and Information System Rev 18

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- REMA for single rod with draw.

PROCEDURAL/REFERENCES:

- 3304.02 Rod Control and Information System Rev. 18

EVALUATOR INSTRUCTIONS:

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

INITIAL CONDITIONS:

The plant is operating at 96% power.

JPM Number: 413

Clinton Power Station
Job Performance Measure (JPM)

INITIATING CUE:

CAUTION

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

Control rod speed has been adjusted for insertion and completed.

With draw control rod 52-41 to position 48 IAW 3304.02 Rod Control and Information System and the provided REMA.

START TIME: _____

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

	With draw Control Rod 52-41.
Standard:	IAW 3304.02
Cue:	Single notch rod with draw is permitted the REMA has been reviewed.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

When the mode switch is in REFUEL, the INSERT REQUIRED will energize after withdrawing the rod 1 notch, to indicate that the selected rod must be fully inserted before another rod may be selected.

CAUTION

Any unexpected or unscheduled change in rod position, or any rod(s) discovered out of required sequence position requires entry into CPS 4007.02, Inadvertent Rod Movement.

Cue:	None
Comments	Note is read and understood

SAT ☐ UNSAT ☐ Comment Number _____

8.1.4) SINGLE ROD WITHDRAWAL

Standard:	1) Verify selected/select the correct rod.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Standard:	2) Momentarily depress the WITHDRAW push-button. ☞ IN, OUT, and SETTLE lights will cycle.
Cue:	None
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Standard:	3) Verify that the rod has moved 1 notch only.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Standard:	4) Check for proper neutron monitoring system response.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

BEGIN ALTERNATE PATH

***8.2.4.1) Entering substitute data**

Standard:	1.Verify that the INDIVID DRIVE light is energized on the OCM. If not, select individual drive by depressing DRIVE MODE push-button.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.4.2.2)**	Depress the SUBST POSITION push-button.
Standard:	Depress the SUBST POSITION push-button.
Cue:	
Comments	

***8.4.2.3)**	Verify: 1) No other gang member of the rod having the defective reed switch is presently using substitute data. 2) Data from the other channel is not substitute data. 3) RAW DATA is not selected.
Standard:	No other gang member of the rod having the defective reed switch is presently using substitute data. Data from the other channel is not substitute data. RAW DATA is not selected.
Cue:	None
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.2.4)**	**Select the rod with the defective reed switch.**
Standard:	Selects control rod 52-41
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.2.5)**	**Ensure that the rod is at the position at which the defective reed switch exists.**
Standard:	Ensure that the rod is at the position at which the defective reed switch exists.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.2.2.6)**	**Depress the ENT SUBST push-button located in the PATTERN CONTROL section of the OCM.**
Standard:	**Depress the ENT SUBST push-button located in the PATTERN CONTROL section of the OCM.**
Cue:	None
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.2.2.7)**	**Verify that the data has been entered by depressing the SUBST POSITION push button. All rods with substitute data be indicated.**
Standard:	**Verify that the data has been entered by depressing the SUBST POSITION push button. All rods with substitute data be indicated.**
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.2.2.8)**	**<u>Rod Movement Criteria When Rod Position Is Substituted</u>** ***«CM-5»*** **1. Movement of a control rod whose position data has been substituted shall be limited to one notch at a time until actual rod position has been confirmed.** **2. Verify actual rod position after each attempt to move a control rod.** **3. Refer to 6.7.3 in event rod does not move or appear to move.**
Standard:	**<u>Rod Movement Criteria When Rod Position Is Substituted</u>** ***«CM-5»*** **1. Movement of a control rod whose position data has been substituted shall be limited to one notch at a time until actual rod position has been confirmed.** **2. Verify actual rod position after each attempt to move a control rod.** **3. Refer to 6.7.3 in event rod does not move or appear to move.**
Cue:	
Comments	End of alternate path rod movement will resume normally single notch. The JPM may be terminated at the discretion of the examiner. SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

When the control rod is substitute data is entered and the rod is being with drawn past position 08.

STOP TIME: _____

JPM Number: 413

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Control Rod Timing Recovery

JPM Number: 413 Revision Number: 00

Task Number and Title:

K/A System	K/A Number	Importance (RO/SRO)	
201005	A2.02	2.8	

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: 13 minutes Actual Time Used: _____ minutes

References: 3304.02 Rod Control and Information System

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 96% power.

Initiating Cue

CAUTION

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

Control rod speed has been adjusted for insertion and completed.

With draw control rod 52-41 to position 48 IAW 3304.02 Rod Control and Information System and the provided REMA.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Defeating HPCS Level 8 Isolation

JPM Number: JPM228

Revision Number: 00

Date: 06/19/2007

Developed By:	**George M. Vaught**	**06/19/2007**
	Instructor	**Date**
Validated By:	**Timothy A. Staber**	**09/10/07**
	SME or Instructor	**Date**
Reviewed By:	**Pete Limon**	**09/10/07**
	Operations Representative	**Date**
Approved By:	**M. Otten**	**10/03/07**
	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: 44100003LSN01.

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 HPCS injection valve Level 8 closure signal is defeated IAW CPS No. 4410.00C002.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- EOP Tool Bag

PROCEDURAL/REFERENCES:

CPS No. 4410.00C002, Rev. 4 DEFEATING HPCS INTERLOCKS

EVALUATOR INSTRUCTIONS:

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

INITIAL CONDITIONS:

You are the "Extra" Reactor Operator. Reactor water level is unknown and RPV flooding is in progress. The "B" Reactor Operator is unable to flood the RPV using the HPCS pump due to RPV level above Level 8.

Clinton Power Station
Job Performance Measure (JPM)

INITIATING CUE:

CAUTION

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

Defeat HPCS Level 8 Isolation per 4410.00C002, DEFEATING HPCS INTERLOCKS. Report to 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. 4410.00C002 DEFEATING HPCS INTERLOCKS

	Locate EOP tool bag.
Standard:	Examinee locates EOP tool bag.
Cue:	
Comments	Do not allow seal to be broken on EOP tool bag. Once operator locates bag associated with 4410.00C002, direct him to use the Training Tool bag.
	SAT ☐ UNSAT ☐ Comment Number _____

***3.2.a**	**DIV 3: 1H13-P663** **At panel 1H13-P663, Bay C, Row A13, Card 15 (HPCS, B21-N673C), ATM Trip Circuit 2, turn the SET adjustment screw counterclockwise 26 full turns.**
Standard:	Examinee locates inside panel 1H13-P663, ATM Trip Circuit 2 at Bay C, Row A13, Card 15 (HPCS, B21-N673C). and simulates turning the the set adjustment screw 26 turns in the COUNTERCLOCKWISE direction.
Cue:	Component is in the position as described.
Comments	Ensure examinee adequately discuss methodology for adjusting the screw 26 full turns.
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***3.2.b**	**DIV 4: 1H13-P664** **At panel 1H13-P664, Bay B, Row A13, Card 09 (HPCS, B21-N673D), ATM Trip Circuit 2, turn the SET adjustment screw counterclockwise 26 full turns.**
Standard:	Examinee locates inside panel 1H13-P664, ATM Trip Circuit 2 at Bay B, Row A13, Card 09 (HPCS, B21-N673D). and simulates turning the the set adjustment screw 26 turns in the COUNTERCLOCKWISE direction.
Cue:	Component is in the position as described.
Comments	Ensure examinee adequately discuss methodology for adjusting the screw 26 full turns. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	Inform CRS the HPCS High RPV Level 8 Isolation Signal is defeated.
Standard:	CRS is informed.
Cue:	IF the examinee properly adjusts screws, state "the HPCS pump flow is indicating 5000 gpm and water level has reached the Main Steam Lines". OTHERWISE state "the HPCS pump flow is indicating zero gpm and water level has reached the Main Steam Lines".
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The HPCS Level 8 isolation is defeated.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Defeating HPCS Level 8 Isolation

JPM Number: JPM228 Revision Number: 00

Task Number and Title: 441000.03 Complete Actions to Defeat HPCS System Interlocks per 4410.00 when in EOP's/SAG's.

K/A System	K/A Number	Importance (RO/SRO)	
216000	K1.04	3.9	4.0

Suggested Testing Environment: Control Room

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. 4410.00C002 Rev. No. 4 Defeating HPCS Interlocks

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

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

Comments: _____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

You are the "Extra" Reactor Operator. Reactor water level is unknown and RPV flooding is in progress. The "B" Reactor Operator is unable to flood the RPV using the HPCS pump due to RPV level above Level 8.

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.

Defeat HPCS Level 8 Isolation per 4410.00C002, DEFEATING HPCS INTERLOCKS. Report to the CRS when the task is complete.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Turbine On Line Tests

JPM Number: JPM415

Revision Number: 00

Date: 08/31/10

Developed By:	**Tallion French**	**08/31/10**
	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	08/31/10	This is a new JPM

Information For Evaluator's Use:

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

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

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

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

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

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

.

1. Any 80% power IC with the Turbine on line.

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

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

3. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

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

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None.

PROCEDURAL/REFERENCES:

- CPS 3812.01 rev. 14, Turbine On Line Tests
- CPS 3105.01 rev. 36a, Turbine (TG, EHC, TS)

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 and INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

1. You are the B RO.
2. The plant is at ~ 80% power.
3. Perform sections 8.1 through 8.2 of CPS 3812.01, Turbine On Line Tests.
4. All prerequisites for section 8.1 are complete.
5. Turbine Trips are **NOT** Disabled (NOT BYPASSED) per CPS 3105.01, Disabling Turbine Trips Using Global Bypass.
6. Operators are stationed at P-680 and at the first hit panel 1PA06J, to support Turbine On Line Tests.
7. 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 3812.01, Turbine On Line Tests

8.1.1 and 2	Verify applicable prerequisites are met **and** Verify Turbine Trips are **NOT** Disabled (NOT BYPASSED) per CPS 3105.01, Disabling Turbine Trips Using Global Bypass.
Standard:	
Cue:	
Comments	Given in the initiating cue.
	SAT ☐ UNSAT ☐ Comment Number _____

8.1.3	Observe the following: NORMAL light is ON. RESET light is ON. Remaining lights in ELECTRICAL TRIP TEST Group are OFF.
Standard:	1. NORMAL light is ON. 2. RESET light is ON. 3. Remaining lights in ELECTRICAL TRIP TEST Group are OFF.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

NOTE

Holding depressed START TEST pushbutton too long could cause out of sequence cycling of lights. The expected response per step 8.1.4 and 8.1.5 needs to be pre-briefed.

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

Annunciator 1H13-P680:
5007-1C Trouble EHC Syst
5017-3B Trouble EHC Fluid (depending on initial reservoir level may cause high level alarm.)

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

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

***8.1.4** **Depress and hold START TEST push-button and observe the following:**

NORMAL light goes OFF
LOCKED OUT light comes ON

Standard:	NORMAL light goes OFF LOCKED OUT light comes ON
Cue:	All status lights and annunciators were received at P-680 and 1PA06J as expected.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.1.5**	**Release START TEST push-button and observe the following sequence:** **RESET light goes OFF, and** **TRIPPED light comes ON** **TRIPPED light goes OFF, and RESET light comes ON** **LOCKED OUT light goes OFF and NORMAL light comes ON**
Standard:	RESET light goes OFF, and TRIPPED light comes ON TRIPPED light goes OFF, and RESET light comes ON LOCKED OUT light goes OFF and NORMAL light comes ON
Cue:	All status lights and annunciators were received at P-680 and 1PA06J as expected.
Comments	SAT ☐ UNSAT ☐ Comment Number _____

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

Clinton Power Station
Job Performance Measure (JPM)

8.2.1 and 2	Verify applicable prerequisites are met **and** Verify Turbine Trips are **NOT** Disabled (NOT BYPASSED) per CPS 3105.01, Disabling Turbine Trips Using Global Bypass.
Standard:	
Cue:	
Comments	▪ Given in the initiating cue. SAT ☐ UNSAT ☐ Comment Number _____

***8.2.3**	**Depress and hold the No. 1 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button.**
Standard:	Push-button is held depressed.
Cue:	
Comments	SAT ☐ UNSAT ☐ Comment Number _____

8.2.4	Observe the associated 125 VOLT DC and 24 VOLT DC lights come ON. (Upper and lower halves of push-button).
Standard:	Verifies the associated 125 VOLT DC and 24 VOLT DC lights come ON.
Cue:	
Comments	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

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

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.6**	**Depress the RESET push-button and observe the associated 125 VOLT DC & 24 VOLT DC lights go OFF.**
Standard:	The two lights go off.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.3**	**Depress and hold the No. 2 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button.**
Standard:	Push-button is held depressed.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2.4	Observe the associated 125 VOLT DC and 24 VOLT DC lights come ON. (Upper and lower halves of push-button).
Standard:	Verifies the associated 125 VOLT DC and 24 VOLT DC lights come ON.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

***8.2.5**	**Release the No. 2 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button. The two lights should remain ON.**
Standard:	The two lights remain ON.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

CAUTION

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

Clinton Power Station
Job Performance Measure (JPM)

***8.2.6**	**Depress the RESET push-button and observe the associated 125 VOLT DC & 24 VOLT DC lights go OFF.**
Standard:	The RESET push-button Depressed.
Cue:	
Comments	The lights will go off.
	SAT ☐ UNSAT ☐ Comment Number _____
8.2.3	**Depress and hold the No. 3 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button.**
Standard:	Push-button is held depressed.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____
8.2.4	Observe the associated 125 VOLT DC and 24 VOLT DC lights come ON. (Upper and lower halves of push-button).
Standard:	Verifies the associated 125 VOLT DC and 24 VOLT DC lights come ON.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.2.5**	**Release the No. 3 125 VOLT DC & 24 VOLT DC BACKUP OVERSPEED TRIP TEST push-button. The two lights should remain ON.**
Standard:	The two lights remain ON.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.2.6**	**Depress the RESET push-button and observe the associated 125 VOLT DC & 24 VOLT DC lights go OFF.**
Standard:	The RESET push-button Depressed.
Cue:	
Comments	The lights will go off.
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The test is completed.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Turbine On Line Tests

JPM Number: 38120101LSF01 Revision Number: 03

Task Number and Title: 381201.01, Complete Control Room actions to perform the Turbine Electrical Trip Test

K/A System	K/A Number	Importance (RO/SRO)	
241000	A4.19	3.5	3.4

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

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

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

References: CPS 3812.01 rev. 11, Turbine On Line Tests

CPS 3105.01 rev. 34, Turbine (TG, EHC, TS)

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 and INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

1. You are the B RO.
2. The plant is at ~ 80% power.
3. Perform sections 8.1 through 8.2 of CPS 3812.01, Turbine On Line Tests.
4. All prerequisites for section 8.1 are complete.
5. Turbine Trips are **NOT** Disabled (NOT BYPASSED) per CPS 3105.01, Disabling Turbine Trips Using Global Bypass.
6. Operators are stationed at P-680 and at the first hit panel 1PA06J, to support Turbine On Line Tests.
7. Inform the CRS when the task is complete.

Exelon Nuclear

CLINTON POWER STATION

Job Performance Measure

Startup the RCIC System in the Tank to Tank Mode – Alternate Path

JPM Number: JPM221

Revision Number: 00

Date: 06/22/2007

Developed By:	**George M. Vaught**	**06/22/2007**
	Instructor	**Date**
Validated By:	**David B. Livingston**	**09/20/07**
	SME or Instructor	**Date**
Reviewed By:	**William E. Mayes, Jr.**	**09/20/07**
	Operations Representative	**Date**
Approved By:	**M. Otten**	**11/07/07**
	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	06/22/2007	Updated numbering convention. Old JPM number: 33100105LSN02.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Reset the simulator to an IC developed for this JPM with the following plant conditions:

   - Reactor Scram.
   - Motor Driven Reactor Feed Pump maintaining level at 0 inches.
   - Group 1 isolation due to a loss of Main Condenser vacuum.

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 JPM221. This Lesson Plan will cause annunciator 5063-5D. RCIC TURBINE BEARING OIL PRESSURE LOW to activate 10 seconds after 1E51-F022 is placed to the OPEN position.

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:

- Start the RCIC System is operating in the Tank to Tank mode IAW CPS No. 3310.01, REACTOR CORE ISOLATION COOLING and secures the RCIC turbine due to oil pressure.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None.

PROCEDURAL/REFERENCES:

- CPS No. 3310.01, Rev 27b REACTOR CORE ISOLATION COOLING.

EVALUATOR INSTRUCTIONS:

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

INITIAL CONDITIONS:

The reactor has scrammed due to Loss of Main Condenser and Group 1 Isolation. Reactor vessel water level is being maintained by Feedwater and reactor pressure with Safety Relief Valves. RCIC is currently in standby.

Clinton Power Station
Job Performance Measure (JPM)

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Startup the RCIC System in the Tank to Tank mode for RPV pressure control per CPS 3310.01.

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. 3310.01, REACTOR CORE ISOLATION COOLING (RI) or HARD Card

---

***8.1.5.2 Open 1E51-F059, RCIC Pmp Second Test Valve To Stor Tank.**

Standard: Locates handswitch for 1E51-F059, places in OPEN and observes Red light ON and Green light OFF.

Cue:

Comments: Step 8.1.5.1 is N/A based on initiating cue.

SAT ☐ UNSAT ☐ Comment Number _____

8.1.5.3 Start the Gland Seal Air Compressor.

Standard: Locates handswitch for Gland Seal Air Compressor, takes to START and observes RED light ON and Green light OFF.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.1.5.4	Verify RCIC Pmp Rm Sply Fan, 1VY04C running.
Standard:	Locates 1VY04C indications and verifies 1VY04C running by observing Red light ON and Green light OFF.
Cue:	
Comments	Step NOT found on HARD Card.
	SAT ☐ UNSAT ☐ Comment Number _____

***8.1.5.5**	**Open 1E51-F046, RCIC Pmp Supp To Turb Lube Oil Clr**
Standard:	Locates handswitch for 1E51-F046, takes to OPEN and observes Red light ON and Green light OFF.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

8.1.5.6	During RCIC operation, verify as appropriate that 1E51-F019, RCIC Pmp Min Flow Recirc To Suppr Pool: Opens whenever RCIC flow is < 120 gpm, and Shuts whenever RCIC flow is > 240 gpm.
Standard:	Verifies 1E51-F019 OPENS, by observing Red light ON, Green light OFF if RCIC flow is < 120 gpm, and CLOSES, by observing Green light ON and Red light OFF, if RCIC flow is > 240 gpm.
Cue:	
Comments	This step is applicable any time after RCIC is running.
	SAT ☐ UNSAT ☐ Comment Number _____

***8.1.5.7 Open 1E51-F045, RCIC Turb Stm Supp Shutoff Valve.**

Standard: Locates handswitch for 1E51-F045, takes to OPEN, and verifies Red light ON Green light OFF.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8.1.5.8 Throttle open 1E51-F022, RCIC Pmp First Test Valve To Stor Tank.**

Standard: Takes handswitch for 1E51F022 to OPEN and observes Red light ON and RCIC Turbine RPM > 1500 RPM.

Cue: As the CRS, accept the operators report that both the 1E51-F059 and 1E51-F022 valves are OPEN.

Comments This step is not required to be performed if operator trip/shutdown RCIC prior to this step.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

CPS 5063-5A RCIC TURBINE BRG OIL PRESSURE LOW

BEGIN ALTERNATE PATH

Acknowledges and reports annunciator 5063-5D, RCIC TURBINE BEARING OIL PRESSURE LOW.

Standard:
- Reports to CRS the annunciator and reviews 5063-5D for actions to take.

Cue: As CRS acknowledge Reactor Operator's report.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Verify RCIC operating > 1500 RPM, if not, adjust speed as necessary to clear the alarm.

Standard: Verifies RCIC speed is > 1500 RPM.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

If RCIC is required for safe plant shutdown, continue operation. This condition could result in RCIC turbine seizure.

Standard: Determine that RCIC is not required for safe shutdown.

Cue: If CRS is asked if RCIC is required, respond that RCIC is not required for safe shutdown.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

---

	*	**If RCIC is <u>not</u> required for safe plant shutdown, secures the RCIC turbine.**
Standard:		Depresses the RCIC Turbine Remote Trip pushbutton and/or shuts 1E51-F045, RCIC Turbine Steam Supply Shutoff Valve.
Cue:		
Comments		RCIC turbine will not trip. SAT ☐ UNSAT ☐ Comment Number _____

	Verifies RCIC Turbine is tripped and no longer injecting.
Standard:	Verifies RCIC flow and speed are both at zero and 1E51-F013 RCIC Pump Dish to RX Outboard Isolation Valve RED light is OFF and GREEN light is ON.
Cue:	
Comments	SAT ☐ UNSAT ☐ Comment Number _____

	Report status of RCIC system.
Standard:	Informs CRS the RCIC Turbine has been tripped by an alternate means.
Cue:	As CRS acknowledge the tripping of the RCIC Turbine and inform the Reactor Operator to not continue with completing the shutdown of the system. Investigation of trip pushbutton failure will have to be performed.
Comments	SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

RCIC turbine has been secured.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Startup the RCIC System in the Tank to Tank Mode – Alternate Path

JPM Number: JPM221 Revision Number: 00

Task Number and Title: 331001.01 Complete Control Room actions to perform manual RCIC startup with flow tank to tank.

K/A System	K/A Number	Importance (RO/SRO)	
217000	A2.07	3.1	3.1

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ☐ No

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

References: CPS No. 3310.01, Rev 27b REACTOR CORE ISOLATION COOLING.

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 reactor has scrammed due to Loss of Main Condenser and Group 1 Isolation. Reactor vessel water level is being maintained by Feedwater and reactor pressure with Safety Relief Valves. RCIC is currently in standby.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

Startup the RCIC System in the Tank to Tank mode for RPV pressure control per CPS 3310.01.

Exelon SM
Nuclear

CLINTON POWER STATION

Job Performance Measure

Verify Group 8 Automatic Isolation (Alternate Path)

JPM Number: JPM217

Revision Number: 00

Date: 07/17/2007

Developed By:	**George M. Vaught**	**07/17/2007**
	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	07/17/2007	Updated numbering convention. Old JPM number: 40010201LSF01.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. Reset the simulator to an IC with the following conditions:

   - Insert a small Reactor Coolant Leak until Drywell Pressure exceeds 1.68 psig, then remove the leak.
   - Secure High Pressure Core Spray injection by manually shutting injection valve.
   - Trip both Reactor Recirculation Pumps and isolate BOTH Reactor Recirculation loops.
   - Stabilize Reactor level and pressure using the HPCS and Turbine Bypass Valves.

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 JPM217 which will cause the following to occur:

   - 1CY016, 1CY017, 1RE022 & 1RE021 to indicate open.
   - 1CY016, 1CY017, 1RE022 & 1RE021 to go close when their associated handswitch is taken to the close position.

3. Verify 1WX019 & 1WX020 have their "NORM" switch depressed with associated Green light on.

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

5. This completes the setup for this JPM.

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- Complete a Group 8 isolation.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- CPS 4001.02C001 with the following Group 8 sections complete:
  1. 1H13-P800 Section 5040
  2. 1H13-P800 Section 5041

PROCEDURAL/REFERENCES:

- CPS No. 4001.02, Automatic Isolation, Rev. 17
- CPS No. 4001.02C001, Automatic Isolation Checklist, Rev. 15d

EVALUATOR INSTRUCTIONS:

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

INITIAL CONDITIONS:

A High Drywell isolation signal has occurred due to a leak in Reactor Recirculation loop "A". Actions to secure both RR Pumps and to isolate the leak have been taken. A Group 8 isolation verification has been started.

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.

a. CPS 4001.02
b. CPS 4001.02C001 with the following sections complete:
   - 1H13-P800 Section 5040
   - 1H13-P800 Section 5041

Clinton Power Station
Job Performance Measure (JPM)

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Complete the verification of a Group 8 Isolation.

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

4001.02, Automatic Isolation

NOTE: The following six(6) steps may be performed in any order

---

4.7 Complete CPS 4001.02C001, verify close 1WX019, RWCU BKWH Inbd Isol Vlv AND/OR 1WX020, RWCU BKWH Outbd Isol Vlv.

Standard: Verify close 1WX019, RWCU BKWH Inbd Isol Vlv AND/OR 1WX020, RWCU BKWH Outbd Isol Vlv by verifying that the red light(s) turn "OFF" and that the green light(s) turn "ON".

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

4.7 Complete CPS 4001.02C001, verify close 0MC009, MC CNMT Outbd Isol Vlv AND/OR 0MC010, MC CNMT Inbd Isol Vlv.

Standard: Verify close 0MC009, MC CNMT Outbd Isol Vlv AND/OR 0MC010, MC CNMT Inbd Isol Vlv by verifying that the red light(s) turn "OFF" and that the green light(s) turn "ON".

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	4.7 Complete CPS 4001.02C001, verify close 1E22-F023, HPCS Test Valve to Suppr Pool.
Standard:	Verify close 1E22-F023, HPCS Test Valve to Suppr Pool.by verifying that the red light turn "OFF" and that the green light turn "ON".
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

	4.7 Complete CPS 4001.02C001, verify close 1RF022, Eq Drain Sump Disch CNMT Outbd Vlv AND/OR 1RF021, Eq Drain Sump Disch CNMT Inbd Vlv.
Standard:	Verify close 1RF022, Eq Drain Sump Disch CNMT Outbd Vlv AND/OR 1RF021, Eq Drain Sump Disch CNMT Inbd Vlv by verifying that the red light(s) turn "OFF" and that the green light(s) turn "ON".
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

BEGIN ALTERNATE PATH

***4.7 Complete CPS 4001.02C001, close 1CY016, CY CNMT Outbd Isol Vlv AND/OR 1CY017, CY CNMT Inbd Isol Vlv.**

Standard: Close 1CY016, CY CNMT Outbd Isol Vlv **AND/OR** 1CY017, CY CNMT Inbd Isol Vlv by manually placing the handswitch to the "CLOSE" position and verifying that the red light(s) turn "OFF" and that the green light(s) turn "ON".

Cue: If CRS is informed that Cycle Condensate isolation valves failed to isolate, acknowledge report and state to operator, "Complete the Group 8 Isolation Checklist".

Comments: 4001.01 provides guidance on what should have isolated.

SAT ☐ UNSAT ☐ Comment Number _____

***4.7 Complete CPS 4001.02C001, close 1RE022, Eq Drain Sump Disch CNMT Outbd Vlv AND/OR 1RE021, Eq Drain Sump Disch CNMT Inbd Vlv.**

Standard: Close 1RE022, Eq Drain Sump Disch CNMT Outbd Vlv **AND/OR** 1RE021, Eq Drain Sump Disch CNMT Inbd Vlv by manually placing the handswitch to the "CLOSE" position and verifying that the red light(s) turn "OFF" and that the green light(s) turn "ON".

Cue: If CRS is informed that Drywell Equipment Drain Sump isolation valves failed to isolate, acknowledge report and state to operator, "Complete the Group 8 Isolation Checklist".

Comments: 4001.01 provides guidance on what should have isolated.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

TERMINATING CUES:

Group 8 isolation is completed.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Verify Group 8 Automatic Isolation (Alternate Path)

JPM Number: JPM217 Revision Number: 00

Task Number and Title: 400101.01, Complete Control Room Actions to Respond to an Automatic Isolation.

K/A System	K/A Number	Importance (RO/SRO)	
223002	A4.06	3.6	

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 12 minutes Actual Time Used: _____ minutes

References: CPS No. 4001.02, Automatic Isolation, Rev. 17
CPS No. 4001.02C001, Automatic Isolation Checklist, Rev. 15d

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

A High Drywell isolation signal has occurred due to a leak in Reactor Recirculation loop "A". Actions to secure both RR Pumps and to isolate the leak have been taken. A Group 8 isolation verification has been started.

Initiating Cue

CAUTION

- All pre-job briefings are completed.

Complete the verification of a Group 8 Isolation .

Exelon SM
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CLINTON POWER STATION

Job Performance Measure

Parallel DG 1B With Offsite Power

JPM Number: 414

Revision Number: 00

Date: 08/31/2010

Developed By:	**Tallion French**	**08/31/2010**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

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

Revision Record (Summary)

Revision	Date	Description
00		This replaces JPM 3506.0105. Revision number reset to 0.

Clinton Power Station
Job Performance Measure (JPM 414)

Operator's Name: _____

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

JPM Title: Parallel DG 1B With Offsite Power

JPM Number: 414 Revision Number:00

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	

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS No. 3506.01C002, Diesel Generator 1B Pre-Start Checklist, Rev. 9f

CPS No. 3506.01C005, Diesel Generator Rev. 1

CPS No. 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, Rev. 49c

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 414)

READ TO THE OPERATOR

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

SIMULATOR SETUP CONDITIONS

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

TASK STANDARDS:

- Diesel Generator 1B 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 3506.01C002, Diesel Generator 1B Pre-Start Checklist filled out.
- CPS No. 3506.01C005, Diesel Generator Rev. 1

PROCEDURAL/REFERENCES:

- CPS No. 3506.01C002, Diesel Generator 1B Pre-Start Checklist, Rev. 9f
- CPS No. 3506.01C005, Diesel Generator Rev. 1
- CPS No. 9080.02, Diesel Generator 1B Operability – Manual and Quick Start Operability, Rev. 49c

EVALUATOR INSTRUCTIONS:

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

Clinton Power Station
Job Performance Measure (JPM 414)

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

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 3506.01C002, Diesel Generator 1B Pre-Start Checklist filled out.
- CPS 3506.01 D002, Diesel Generator 1B Operating Logs

START TIME: _____

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

8.2 **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.*

8.2.13 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 _____

---

	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:

1) Rapid change in DG output voltage,
   AND/OR
2) Rapid change in DG frequency,
   AND/OR
3) Rapid change in DG KW,
   AND/OR
4) Rapid change in DG KVAR,

THEN:

1) Trigger TT
2) Forward the transient data to Plant Engineering for analysis

Standard: No action required at this time.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***5. 8.2.12.5.1)**

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

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)**

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

	7. 8.2.12.5.3) 3) Preferable VAR's loading is between 110 to 0 KVAR adjust as necessary .
Standard:	Operator adjusts VARs as necessary with the voltage regulator.
Cue:	None, self revealing
Comments	
	SAT ☐ UNSAT ☐ Comment Number

CAUTIONS

1. *To ensure that DGs are not overloaded and to maintain DG operability, DG load **should not** be allowed to exceed **3875 KW,** except for short periods of time (Refer to 6.2.11).*
2. *DG Reactive (KVAR) loading shall be maintained within the limits of Appendix A, DG 1A/1B REACTIVE LOAD CAPABILITY CURVE.*

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 300KW the diesel generator trouble alarm comes in.

SAT ☐ UNSAT ☐ Comment Number

Begins Alternate Path

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

Standard: Operator notifies SRO of problem.

Cue: When the equipment operator is called inform the RO
"Diesel Generator coolant temperature is 196F and rising."

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

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

SAT ☐ UNSAT ☐ Comment Number

10.	Annunciator for DG tripped comes in two minutes after the trouble alarm.
Standard:	Operator notifies SRO of problem.
Cue:	When the equipment operator is called inform the RO "Diesel Generator coolant temperature is 206F and rising." If operator looks for direction from the SRO ask him for suggested action.
Comments	Examinee may go directly to 8.2.14.4 (Step 13) and Open DG 1B Output Breaker or Emergency Stop the DG. If so, N/A steps 10 and 11, and continue at step 12.
	SAT □ UNSAT □ Comment Number

11.	To lower diesel generator load prior to opening the output breaker.
Standard:	Operator takes handswitch for DG 1B governor control switch to LOWER.
Cue:	None, self revealing
Comments	
	SAT □ UNSAT □ Comment Number

	12.	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		
		SAT ☐ UNSAT ☐ Comment Number

	***13.**	**8.2.13.4** **Open DG 1B Output Bkr, 1AP09EH**
Standard:		Operator takes the handswitch for DG 1B output breaker to TRIP and observes GREEN light ON. Or Takes the DG control switch to stop. Or Pushes the DG Emergency Stop Pushbutton
Cue:		None, self revealing
Comments		This may be accomplished by opening the breaker or tripping the DG and verifying the Output Bkr open.
		SAT ☐ UNSAT ☐ Comment Number

TERMINATING CUES:

DG 1B is emergency stopped.

STOP TIME: _____

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

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 (Alternate Path)

JPM Number: JPM227

Revision Number: 00

Date: 07/10/2007

Developed By:	**George Vaught**	**07/10/2007**
	Instructor	**Date**
Validated By:	**Timothy A. Staber**	**09/11/07**
	SME or Instructor	**Date**
Reviewed By:	**M. L. Bensen**	**09/11/07**
	Operations Representative	**Date**
Approved By:	**M. Otten**	**10/03/07**
	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	07/10/2007	Updated numbering convention. 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. Open and execute Simulator Lesson Plan JPM227. This Lesson Plan will stick rod 40-09 to an overtravel in position. **Remote 1** (to unstuck and settle the rod) is to be inserted when rod 40-09 is directed to be hydraulically disarmed.

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

5. Insert SRMs and IRMs

6. Downscale all IRMs

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

8. 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.19a, REACTOR SCRAM
- CPS No. 3304.01 rev 32c, CONTROL ROD HYDRAULIC & CONTROL

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.

INITIAL CONDITIONS:

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

Clinton Power Station
Job Performance Measure (JPM)

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 No. 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 PLACE ALL 4 BYP DISCH VOL HI LVL DIV 1(2,3&4) KEYLOCK BYPASS SWITCHES TO BYPASS.**

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

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***A.3 WHEN SCRAM & ARI/RPT SIGNALS ARE CLEAR, RESET REACTOR SCRAM AND ARI/RPT TRIPS WITH THE SCRAM AND ARI RESET PUSHBUTTONS.**

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 but is not critical for this JPM.

SAT ☐ UNSAT ☐ Comment Number _____

A.4 Verify 1C11-F010/F011 & F180/F181, Scram Discharge Volume Vent and Drain Valves open.

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

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

BEGINS ALTERNATE PATH

***A.5**	**Re-verify all control rods are still fully inserted, and re-settled to '00' (full core display - raw data).**
Standard:	Selects "Raw Data" and checks Full Core Display to verify all rods are fully inserted.
Cue:	If CRS is notified that a rod did not settle, acknowledge report. If operator asks CRS for direction, repeat the initiating cue.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***A.5**	**Hydraulically disarm (in a timely manner) any rods which do not re-settle to '00' to prevent rod from withdrawing in the event of a transponder card failure.**
Standard:	Directs NLO to hydraulically disarm control rod 40-09 per 3304.01, section 8.2.5.1.
Cue:	Insert **Remote 1** and inform Reactor Operator control rod 40-09 is hydraulically disarmed.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

A.5	Re-verify all control rods are still fully inserted, and re-settled to '00' (full core display – raw data).
Standard:	Selects "Raw Data" to verify all rods are fully inserted.
Cue:	
Comments	

Clinton Power Station
Job Performance Measure (JPM)

SAT ☐ UNSAT ☐ Comment Number _____

A.6 Clear the RESET DRIFT on the P680 System Mode panel.

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

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

A.7 **WHEN** SCRAM discharge volume has drained below the high level alarm set point,

THEN Return BYP DISCH VOL HI LVL DIV 1 (2,3, and 4) bypass switches to NORMAL.

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 should take approximately 5 minutes for the Discharge Volume High Level Annunciators to clear.

SAT ☐ UNSAT ☐ Comment Number _____

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: ☐ NLO ☐ RO ☐ SRO ☐ STA ☐ SRO Cert

JPM Title: Reset a Reactor Scram per CPS No. 4100.01 (Alternate Path)

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: 18 minutes Actual Time Used: _____ minutes

References: CPS No. 4100.01 rev.20a, REACTOR SCRAM
CPS No. 3304.01 rev 33c, CONTROL ROD HYDRAULIC & CONTROL

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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Job Performance Measure

Startup Continuous Containment Purge Unfiltered

JPM Number: 106

Revision Number: 01

Date: 05/14/09

Developed By:	**Tom Pickley**	**05/14/2009**
	Instructor	**Date**
Validated By:	**T. French**	**7/1/2009**
	SME or Instructor	**Date**
Reviewed By:	**J. Lucas**	**7/1/2009**
	Operations Representative	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating and terminating cues are properly identified.

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

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

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

Current Procedure Rev. _____ Date: _____

Procedure Rev. Referenced _____ Date: _____

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

_____ 9. Pilot test the JPM:

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

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

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

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

_____ _____
SME/Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	03/14/07	New Revision
01	05/14/09	Updated procedure revision

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

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

1. Initialize to any suitable IC 41 with Containment Ventilation secured and CCP ready for startup. Override the CCP Joystick in the "Manual" position.

2. Place the CCP Joystick in the "Neutral" position.

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

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:

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

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- None

PROCEDURAL/REFERENCES:

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

EVALUATOR INSTRUCTIONS:

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

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

The plant is in MODE 1.

You are the B RO.

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

There are no isolation signals present.

ITS Bases for SR 3.6.5.3.2 has been evaluated.

Radiation Protection has been notified.

Containment temperatures are rising requiring CCP to be started.

INITIATING CUE:

CAUTION

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

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

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

8.1.1.1 Startup Continuous Containment Purge Unfiltered (Auto)

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

Standard: No action necessary. Addressed in initial conditions.

Cue: None necessary

Comments

SAT ☐ UNSAT ☐ Comment Number _____

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

Standard: No action necessary. Addressed in initial conditions.

Cue: None necessary

Comments

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

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

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

Clinton Power Station
Job Performance Measure (JPM)

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

BEGIN ALTERNATE PATH

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

8.2.1.1 Startup Continuous Containment Purge Unfiltered (Manual Operation)
Operator may revisit shut down section to verify line up.

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

Clinton Power Station
Job Performance Measure (JPM)

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

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

SAT ☐ UNSAT ☐ Comment Number _____

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

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

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

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

TERMINATING CUES:

Continuous Containment Purge is running in the Unfiltered Mode.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Startup Continuous Containment Purge Unfiltered-Automatic

JPM Number: 106 Revision Number: 01

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

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

Suggested Testing Environment: Simulator,

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

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

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

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

Comments: _____

_____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

Initial Conditions

The plant is in MODE 1.

You are the B RO.

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

There are no isolation signals present.

ITS Bases for SR 3.6.5.3.2 has been evaluated.

Radiation Protection has been notified.

Containment temperatures are rising requiring CCP to be started.

Initiating Cue

CAUTION

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

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