CLINTON POWER STATION

Job Performance Measure

Perform CPS 9820.01 Core Thermal Limits

JPM Number: JPM402

Revision Number: 01

Date: 06/14/13

Developed By:	**G. Thullen**	**06/14/13**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

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

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

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

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

_____ 10. Verify performance time is accurate

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

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

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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	04/09/10	New JPM. Previously JPM982001.
01	06/14/13	Updated to new template.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. This JPM can be performed in a classroom or other secure area with the 3D cases generated per step 2.

2. The following can be used as necessary to recreate the 3D Case printouts with out of spec MFLCPR and MFLPD:

   a. Initialize to a full power IC.

   b. Insert Malfunction M3D_FLCPR_V_10 to a final value of 1.012 to raise MFLCPR for fuel assembly 21-18 to a value greater than 1.0.

   c. Insert Malfunction M3D_FLPD_V_2 to a final value of 1.083 to raise MFLPD for fuel assembly 23-32 to a value greater than 1.0.

   d. Print out a 3D case.

   e. Verify MFLCPR and MFLPD are > 1.0.

3. Freeze Simulator.

4. Markup a copy of 9820.01D001 Power Distribution Limits Data Sheet to match the attached example.

5. Attach the 3D Monicore Case to the copy of 9820.01D001.

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:

- Perform CPS 9820.01 rev. 33e, Power Distribution Limits, with no deviation from the procedure.
- Identifies highest values of MFLCPR and MFLPD are > 1.0.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Perform CPS 9820.01 Rev. 33e, Power Distribution Limits .

PROCEDURAL/REFERENCES:

- CPS 9820.01, Power Distribution Limits, Rev. 33e
- CPS 9820.01D001, Power Distribution Limits Data Sheet, Rev. 32e

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.
- Provide the examinee with a copy of the Initial Conditions and Initiating Cue page (back page of the JPM) when providing the initiating cue.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are the 'B' RO.

The plant is at full power with RR Pumps A and B operating in fast speed.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

The Control Room Supervisor directs you to perform the daily surveillance CPS 9820.01, Power Distribution Limits.

Report to the CRS after completing the task.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

9820.01 Power Distribution Limits

5.1 Notify Shift Management prior to performing procedure.

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

Cue: Acknowledge notification.

Comments

SAT ☐ UNSAT ☐ Comment Number _____

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

Standard: Verifies Core Thermal Power is ≥ 21.6% of RTP by checking the 3D Case.

Initials CPS 9820.01D001, Power Distribution Limits Data Sheet step 5.2.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

5.3 Check the applicable entry condition.

Clinton Power Station
Job Performance Measure (JPM)

Standard:	Determines that the applicable entry condition is Daily Surveillance. Checks the "Daily Surveillance" box on CPS 9820.01D001, Power Distribution Limits Data Sheet.
Cue:	
Comments	The entry condition was given in the initiating cue. SAT ☐ UNSAT ☐ Comment Number _____

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

Standard:	Determines that second character of 3D CASE ID is an 'M'. Initials CPS 9820.01D001, Power Distribution Limits Data Sheet step 5.4.
Cue:	
Comments	The case ID number appears in the upper right hand corner of the 3D case on page 1, below the date. SAT ☐ UNSAT ☐ Comment Number _____

5.5 Check applicable RR pump status.

Standard:	Checks "2 RR pumps in operation" box on CPS 9820.01D001, Power Distribution Limits Data Sheet step 5.5.
Cue:	
Comments	RR Pump status is provided in the initiating cue. SAT ☐ UNSAT ☐ Comment Number _____

5.6 Check applicable 3D Case OPTION line items: ARTS, 2 LOOPS ON, MANUAL FLOW, 1 LOOP ON

Clinton Power Station
Job Performance Measure (JPM)

Standard:	Reviews the 3D Case and determines that ARTS, DUAL LOOP, and MANUAL FLOW is printed. Checks ARTS, 2 LOOPS ON, and MANUAL FLOW boxes on CPS 9820.01D001, Power Distribution Limits Data Sheet step 5.6.
Cue:	
Comments	This information is located to the right of OPTION on the 3D Case. SAT ☐ UNSAT ☐ Comment Number _____

5.7 IF Core flow used by 3D Monicore is inaccurate,
THEN Substitute total core flow from recorder B33-R613 on P678 or from the method specified by the Reactor Engineer into B33NA001.

Standard:	No action required; step is not applicable for this JPM.
Cue:	If the examinee asks the SRO if core flow is accurate, cue him/her that core flow instrumentation is operating normally.
Comments	 SAT ☐ UNSAT ☐ Comment Number _____

8.1 Calculate core thermal limits by running an Official 3D Case.

Standard:	No action required. 3D case provided in the initiating cue.
Cue:	Hand examinee a copy of the attached 3-D Monicore print out.
Comments	 SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.2 From the 3D Case determine the highest MAPRAT value.
Initial CPS 9820.01D001 if MAPRAT ≤ 1.0.

Standard:	Determines the highest MAPRAT value is ≤ 1.0. Initials for step 8.2 on CPS 9820.01D001, Power Distribution Limits Data Sheet.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.3 From the 3D Case determine the highest MFLCPR value.**
Initial CPS 9820.01D001 if MFLCPR ≤ 1.0.

Standard:	Determines that the highest MFLCPR value is >1.0. Does **NOT** initial CPS 9820.01D001, Power Distribution Limits Data Sheet.
Cue:	If examinee reports MFLCPR value is > 1.0, acknowledge the report and then cue him/her to complete the surveillance.
Comments	One location will have a MFLCPR value > 1.0 (21-18). May insert a note documenting what was observed.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.4** **From the 3D Case determine the highest MFLPD value.**
Initial CPS 9820.01D001 if MFLPD ≤ 1.0.

Standard:	Determines that the highest value of MFLPD is >1.0. Does **NOT** initial CPS 9820.01D001, Power Distribution Limits Data Sheet.
Cue:	If examinee reports MFLPD value is > 1.0, acknowledge the report and then cue him/her to complete the surveillance.
Comments	One location has MFLPD value > 1.0 (23-32). May insert a note documenting what was observed

SAT ☐ UNSAT ☐ Comment Number _____

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

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

Standard:	Notifies Shift Management that MFLCPR and MFLPD are out of specification.
Cue:	Acknowledge notification. If earlier 3D printouts are requested state the previous 3D cases are within limits.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

	8.6 Notify Shift Management of surveillance completion.
Standard:	Notifies Shift Management of surveillance completion. Enters stop date, stop time, and initials CPS 9820.01D001, Power Distribution Limits Data Sheet.
Cue:	Acknowledge notification.
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

	8.7 A copy of 3D Case used shall be signed, dated, labeled "9820.01", and attached to CPS 9820.01D001, Power Distribution Limits Data Sheet.
Standard:	Attaches a signed, dated, labeled copy of the 3D Case used to CPS 9820.01D001, Power Distribution Limits Data Sheet.
Cue:	
Comments	
	SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Daily surveillance CPS 9820.01, Power Distribution Limits is complete.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Perform CPS 9820.01

JPM Number: JPM402 Revision Number: 01

Task Number and Title: 982001.01 / Evaluate Core Thermal Limits during Power Operations

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.1.19	3.9	3.8
Ability to use plant computers to evaluate system or component status.			

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: CPS 9820.01, Power Distribution Limits, rev. 33e
CPS 9820.01D001, Power Distribution Limits Data Sheet, rev. 32e

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

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

Comments: _____

_____

_____

_____

_____

Evaluator's Name: _____ (Print)

Evaluator's Signature: _____ Date: _____

INITIAL CONDITIONS:

You are the 'B' RO.

The plant is at power.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

The Control Room Supervisor directs you to perform the daily surveillance CPS 9820.01, Power Distribution Limits.

Report to the CRS after completing the task.

CLINTON POWER STATION

Job Performance Measure

Perform a License Maintenance Check

JPM Number: JPM409

Revision Number: 01

Date: 06/14/13

Developed By:	**G. Thullen**	**06/14/13**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

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

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

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

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

_____ 10. Verify performance time is accurate

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

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

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	8/31/2010	New JPM.
01	06/14/13	Updated to new template with current dates on Initiating Cue and on Attachment 1

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

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

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- ESOMS Report of Hours (JPM Page 9)
- OP-AA-105-102, NRC Active License Maintenance

PROCEDURAL/REFERENCES:

- OP-AA-105-102, NRC Active License Maintenance, Rev. 9

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.
- Provide the examinee with a copy of the Initial Conditions and Initiating Cue page (back page of the JPM) when providing the initiating cue.
- Provide the examinee with a copy of the ESOMs Log Entries (Report of Hours) (JPM Page 9) after the initiating cue has been acknowledged by the examinee.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

The plant is operating at rated thermal power.

Today is 8/20/2013.

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.

1) Determine if you will be proficient for the next quarter.
2) If not, determine the number of watches required to maintain proficiency.
3) Determine the last date your license will be active.

Report to the CRS after completing the task.

START TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

PERFORMANCE INFORMATION

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

PERFORMANCE STEPS

OP-AA-105-102, NRC Active License Maintenance

	***1**	**Examinee determines the minimum hours of watch standing for credit for proficiency have NOT been met.**
Standard:		Examinee reviews the ESOMs log entries and verifies that only 36 hours can be credited for proficiency (lines 1, 2, 4 and 5)
Cue:		
Comments		

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***2 Examinee determines they need a 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 examinee determines that they need a minimum of two shifts before the quarter expires to keep their license active.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***3 Examinee determines their license will be active until September 30, 2013.**

Standard:

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

Examinee has completed performing a license maintenance check.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: License Maintenance Check

JPM Number: JPM409 Revision Number: 01

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	2.1.04	3.3	N/A
Knowledge of individual licensed operator responsibilities related to shift staffing, such as medical requirements, "no-solo" operation, maintenance of active license status, 10CFR55, etc.			

Suggested Testing Environment: Simulator

Actual Testing Environment: ☐ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References: OP-AA-105-102, NRC Active License Maintenance, 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: _____

Clinton Power Station
Job Performance Measure (JPM)

ESOMs Log Entries (Report of Hours)

	Hours Worked	Start Time	Finish Time	Description	Date
Your Name Here	8	0700	1500	'A' RO	7/10/13
Your Name Here	12	0700	1900	'A' RO	7/11/13
Your Name Here	6	0700	1300	Emergent call home	7/12/13
Your Name Here	8	2300	0700	'B' RO	8/8/13
Your Name Here	8	2300	0700	'B' RO	8/9/13
Your Name Here	4	1500	1900	Hold over from cyclic training	8/14/13
Your Name Here	4	1500	1900	Hold over from cyclic training	8/15/13
Your Name Here	6	0700	1300	Call in for emergent surveillance completion	8/16/13

INITIAL CONDITIONS:

The plant is operating at rated thermal power.

Today is 8/20/2013.

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.

1) Determine if you will be proficient for the next quarter.
2) If not, determine the number of watches required to maintain proficiency.
3) Determine the last date your license will be active.

Report to the CRS after completing the task.

ESOMS Report of hours

	Hours worked	Start time	Finish time		Date
Your name here	8	7:00	15:00	A' RO	07/10/2013
Your name here	12	7:00	19:00	A' RO	07/11/2013
Your name here	6	7:00	13:00	Emergent call home	07/12/2013
Your name here	8	23:00	7:00	B' RO	08/08/2013
Your name here	8	23:00	7:00	B' RO	08/09/2013
Your name here	4	15:00	19:00	Hold over from cyclic training	08/14/2013
Your name here	4	15:00	19:00	Hold over from cyclic training	08/15/2013
Your name here	6	7:00	13:00	Call in for emergent surveillance completion	08/16/2013

CLINTON POWER STATION

Job Performance Measure

Perform a Manual Jet Pump Operability

JPM Number: JPM512

Revision Number: 01

Date: 06/14/13

Developed By:	**G. Thullen**	**06/14/13**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

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

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

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

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

_____ 10. Verify performance time is accurate

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

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

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

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	12/05/05	New format and numbering convention, revalidated. This replaces JPM 012202J005. Revision number reset to 00.
01	06/14/13	Updated to new template and numbering convention. This replaces 90410101LAN01.

Clinton Power Station
Job Performance Measure (JPM)

Simulator Setup Instructions

1. None

Clinton Power Station
Job Performance Measure (JPM)

READ TO THE OPERATOR

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

TASK STANDARDS:

- CPS No. 9041.01 Jet Pump Operability Test has been completed satisfactorily.

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

- Calculator

PROCEDURAL/REFERENCES:

- CPS No. 9041.01, Jet Pump Operability Test, Rev 36c
- CPS No. 9041.01D001, Jet Pump Operability Test Data Sheet, Rev. 34b

EVALUATOR INSTRUCTIONS:

- This JPM can be performed in a classroom or other secure area. Data sheets (JPM pages 18-20) are provided to the examinee with the values to be used to perform the surveillance.
- Provide the examinee with a copy of the Initial Conditions and Initiating Cue page (back page of the JPM) when providing the initiating cue.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

You are the extra RO.

The computerized method of performing CPS No. 9041.01 is not available at this time.

RR Pumps A and B are operating in fast speed.

APRM calibrations are NOT in progress.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

The CRS has directed you to perform CPS No. 9041.01 Jet Pump Operability Test. Document results on CPS 9041.01D001 Jet Pump Operability Test Data Sheet.

Report to the CRS after completing the task.

NOTE TO EVALUATOR

When the Initiating Cue has been read by the student and acknowledged, provide the following to the student.

- CPS No. 9041.01, Jet Pump Operability Test, Rev 36c
- CPS No. 9041.01D001, Jet Pump Operability Test Data Sheet, Rev. 34b
- Data Sheets (JPM pages 17 – 19)
- Calculator

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. 9041.01, Jet Pump Operability Test
CPS No. 9041.01D001, Jet Pump Operability Test Data Sheet

Section 5.0 Prerequisites	Examinee performs all section 5.0 Prerequisites.
Standard:	Examinee records the following: 9041.01 - Places a check in the box for step 5.1, 5.1.1.1, 5.2, and 5.3 9041.01D001: • Initials step 5.1.1 • Places a check in the box to the right of step 5.1.1.1 • NA's step 5.1.2 • Records reactor power in step 5.2 • Notifies SMngt of test start. Records time and date, and initials the performer blank of step 5.3.
Cue:	Report that authorization has been granted Report that ESOMs log entries will be made by the 'B' RO.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

***8.1.1**	**(Record) Use computer points B33DA013 (Loop A) and B33DA014 (Loop B) to determine operating Recirculation Loop A and B Flow in GPM.**
Standard:	Examinee records the following: 9041.01 - Places a check in the box for step 8.1.1 **9041.01D001 - Examinee records 32,500 gpm for Recirc Loop A flow and 31,000 gpm for Recirc Loop B flow.**
Cue:	
Comments	Recording data on the data sheet is the only portion of the step that is critical. SAT ☐ UNSAT ☐ Comment Number _____

***8.1.2**	**(Record) Use computer points B33-DA009 (FCV 1B33-F060A) and B33-DA010 (FCV 1B33-F060B) to determine operating Recirculation FCV position.**
Standard:	**Examinee records the following:** 9041.01 – circles "RVDT" and places a check in both boxes for step 8.1.2. **9041.01D001:** • **61% in the position blanks for FCV's B33-F060A and B33-F060B on CPS No. 9041.01D001 step 8.1.2.**
Cue:	Data on previously provided data sheet.
Comments	Recording data on the data sheet is the only portion of the step that is critical. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.3.1 If slow speed Recirc Pumps, then use the following:

ESTABLISHED	ESTABLISHED
Loop A Flow 7600 gpm	Loop B Flow 7900 gpm

Standard: Not applicable – RR Pumps are operating in Fast speed per the cue.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

***8.1.3.2 If fast speed Recirc Pumps, using Figure 1a (1b) [RVDT] or 1c (1d) [LVDT], and the FCV position from step 8.1.2, determine the following:**

Determine the Established Recirculation Loop and/or B flow using step 8.1.3.2 as follows:

ESTABLISHED	**ESTABLISHED**
Loop A Flow _____ gpm	**Loop B Flow _____ gpm**

Standard: **Examinee records the following:**

9041.01 – places a check in the box for step 8.1.3.2

9041.01D001:
- **Recirc Loop A: 28,000 – 29,000 gpm**
- **Recirc Loop B: 29,000 – 30,000 gpm**

Cue:

Comments Any value recorded between the minimum and maximum flow values above is satisfactory.

Recording RR Pump Loop flow is the only critical portion of the step.

SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

8.1.3.3	If in SINGLE LOOP, using Figure 1e (1f) [RVDT] or 1g (1h) [LVDT] and the FCV position from step 8.1.2, determine the following: ESTABLISHED Loop A Flow _____ gpm ESTABLISHED Loop B Flow _____ gpm
Standard:	Examinee records NA in both blanks for 9041.01D001 step 8.1.3.3.
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***8.1.4**	**Calculate the % deviation of the indicated loop flow from the established loop using the data sheet formula.**

Standard:	**Examinee calculates Loop Flow % Deviation using the formula listed in CPS No. 9041.01D001 step 8.1.4 and records the following values:**
	• **Recirc Loop A:**
	  o **Indicated flow - 32,500 gpm**
	  o **Established flow - 28,000 – 29,000 gpm**
	  o **Loop Flow % Deviation – 16.1% - 12.1%**
	• **Recirc Loop B:**
	  o **Indicated flow - 31,000**
	  o **Established flow - 29,000 – 30,000 gpm**
	  o **Loop Flow % Deviation – 6.9% - 3.3%**
	Examinee checks the box for step 8.1.4 in 9041.01

Cue:	If the examinee reports that the 'A' RR Loop % deviation is outside the ±10% acceptance value, acknowledge the report and cue the examinee to complete the surveillance and report any remaining data outside the acceptance criteria of 9041.01.

Clinton Power Station
Job Performance Measure (JPM)

Comments Recording data in 9041.01D001 is the only critical portion of the step.

SAT ☐ UNSAT ☐ Comment Number _____

CPS No. 9041.01, Jet Pump Operability Test
8.2 Indicated Total Core Flow versus Established Total Core Flow

---

***8.2.1 (Record) Indicated Total Core Flow.**

Standard: Examinee records the following:

9041.01 – places a check in the box for step 8.2.1

9041.01D001 - Examinee records the numeral "77" in the blank for Indicated Total Core Flow on CPS No. 9041.01D001 step 8.2.1.

Cue:

Comments Recording data on the data sheet is the only portion of the step that is critical.

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.2 (Record) Calculate Total Recirc Flow.**

Standard: **Examinee records the following:**

9041.01 – places a check in the box for step 8.2.2

9041.01D001:

- **Examinee enters the numerals "32,500" in the Loop A flow blank and "31,000" in the Loop B flow blank, and then enters the numeral "63,500" in the Total Recirc Loop Flow blank.**

Cue:

Comments Recording data on the data sheet is the only portion of the step that is critical.

SAT ☐ UNSAT ☐ Comment Number _____

***8.2.3 (Record) Determine and record the Established Total Core Flow.**

Standard:	**Examinee uses Figure 2a from 9041.01 to determine Established Core Flow and records the numeral "81-83" in the blank on CPS No. 9041.01D001 step 8.2.3 (any value within this range is acceptable).** 9041.01 – examinee places a check in the box for step 8.2.3.1.
Cue:	
Comments	Any value recorded between the minimum and maximum flow values above is satisfactory. Recording data on 9041.01D001 is the only critical portion of the step. SAT ☐ UNSAT ☐ Comment Number _____

***8.2.4 (Record) Calculate Core Flow % Deviation.**

Standard:	**Examinee records the following:** 9041.01 – places a check in the box for step 8.2.4 **9041.01D001:** • **Indicated flow – 77 mlbm/hr** • **Established flow – 81 - 83 mlbm/hr** • **Core Flow % Deviation – -4.9% to -7.2%**
Cue:	
Comments	Any value recorded between the minimum and maximum established flow values above is satisfactory. Recording data on the 9041.01D001 data sheet is the only critical portion of the step. SAT ☐ UNSAT ☐ Comment Number _____

Clinton Power Station
Job Performance Measure (JPM)

CPS No. 9041.01, Jet Pump Operability Test
8.3 Indicated Jet Pump Flow/dP Versus Established Jet Pump Flow/dP

8.3.1	(Record) Using computer points B33NA009 - 028, or P619 indications, record for each jet pump for the operating loops, the indicated diffuser-to-lower plenum Jet Pump flow or Jet Pump dP
Standard:	Examinee records the following: 9041.01 – places a check in the box for step 8.3.1 9041.01D001- Jet Pump Flows using values provided on the data sheet in the first column of CPS No. 9041.01D001 Table 1: JP Flow/dp and Deviation Data Table
Cue:	Provide Data Sheet for Section 8.3
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

NOTE

For TWO LOOP operation, if the results of steps 8.1.4 and 8.2.4 are acceptable, the surveillance results are acceptable, and steps 8.3.2, 8.3.3, 8.3.4 may be omitted (N/A'd).

For SINGLE LOOP operation, these steps should be performed for the operating jet pumps, but acceptance criteria has not been established.

***8.3.2 & 8.3.3** **(Record) Calculate the Average Jet Pump Flow for each recirc loop using Formula #1 or Average Jet Pump dP (P619 dP meter scales are in %) for each recirc loop using Formula #2.**

Standard: Examinee records the following values on 9041.01D001 Table 1 JP Flow / dP and DEVIATION DATA Table:

- Sum 1-10: 37.97
- 8.3.2 Average JP Flow: 3.797
- Sum 11-20: 39.08
- 8.3.2 Average JP Flow: 3.908

JP 1	5.1%		JP 11	4.9%
JP 2	5.1%		JP 12	4.9%
JP 3	-1.76%		JP 13	-1.2%
JP 4	- 0.71%		JP 14	- 1.48%
JP 5	0.08%		JP 15	2.10%
JP 6	0.34%		JP 16	0.05%
JP 7	-1.76%		JP 17	-1.2%
JP 8	- 0.97%		JP 18	- 2.51%
JP 9	-1.76%		JP 19	-2.76%
JP 10	-3.61%		JP 20	-2.76%

- Columns for Jet Pump dP % and % DEV dP (8.3.1 and 8.3.3) should be NA'd.

For 9041.01 – the examinee should place a check in the box for step 8.3.2 & 8.3.3, and record the following values for Formula #1 in step 8.3.2:

- Sum of JP 1 Thru 10 flows – 37.97
- Average of JP 1 Thru 10 flows – 3.797
- Sum of JP 11 Thru 20 flows – 39.08
- Average of JP 1 Thru 10 flows – 3.908
- Blanks for Formula #2 should be NA'd

Cue:

Comments The values recorded by the examinee may be slightly different than the values listed above based on rounding methods, if used.

Clinton Power Station
Job Performance Measure (JPM)

SAT ☐ UNSAT ☐ Comment Number _____

8.3.4 (Initial) Compare jet pump flow or dP to acceptance criteria.

Standard:

- 9041.01D001 - Examinee should initial each blank in the 8.3.4 column of 9041.01D001 Table 1 after comparing the values recorded in 9041.01D001 Table 1 step 8.3.3 data with the values for Fast Speed (80-100% Power) in Table 1 of 9041.01 (lower right hand table).
- For 9041.01 – the examinee should place a check in the box for step 8.3.4.1.

Cue:

Comments

SAT ☐ UNSAT ☐ Comment Number _____

8.4 (Initial) If an Engineering evaluation was performed, are jet pumps OPERABLE?

Standard: Step is NA – an engineering evaluation was not performed.

Cue:

Comments Step can be NA'd

SAT ☐ UNSAT ☐ Comment Number _____

8.5 (Initial) Notify SMngt at test completion.

Clinton Power Station
Job Performance Measure (JPM)

Standard:	Examinee records the following: 9041.01 – checks the box for step 8.5 9041.01D001 – date, time and initials
Cue:	Acknowledge completion.
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

CPS No. 9041.01 Jet Pump Operability Test completed satisfactorily.

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Perform a Manual Jet Pump Operability

JPM Number: JPM512 Revision Number: 01

Task Number and Title: 904101.01, Perform the Jet Pump Operability Test

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.2.12	3.7	4.1
Knowledge of surveillance procedures.			

Suggested Testing Environment: Simulator

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

Estimated Time to Complete: 40 minutes Actual Time Used: _____ minutes

References: CPS No. 9041.01, Jet Pump Operability Test, Rev. 36C
CPS No. 9041.01D001, Jet Pump Operability Test Data Sheet, Rev. 34B

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: _____

Data Sheet for Section 5

Reactor Power	96%
Loop A Flow	38.0 Mlbm/Hr
Loop B Flow	38.6 Mlbm/Hr

Data for Section 8.1 and 8.2

B33DA013	INDICATED Loop A Flow	32,500 gpm
B33DA014	INDICATED Loop B Flow	31,000 gpm
B33DA009	B33-F060A Recirc FCV Position	RVDT 61%
B33DA010	B33-F060B Recirc FCV Position	RVDT 61%
B33NA001	Indicated Total Core Flow	77.0 Mlbm/Hr

Clinton Power Station
Job Performance Measure (JPM)

Jet Pump Flow for Section 8.3

Jet Pump Number	Jet Pump Flow (mlb/hr)
JP 1	3.99
JP 2	3.99
JP 3	3.73
JP 4	3.77
JP 5	3.80
JP 6	3.81
JP 7	3.73
JP 8	3.76
JP 9	3.73
JP 10	3.66
JP 11	4.10
JP 12	4.10
JP 13	3.86
JP 14	3.85
JP 15	3.99
JP 16	3.91
JP 17	3.86
JP 18	3.81
JP 19	3.80
JP 20	3.80

INITIAL CONDITIONS:

You are the extra RO.

The computerized method of performing CPS No. 9041.01 is not available at this time.

RR Pumps A and B are operating in fast speed.

APRM calibrations are NOT in progress.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

The CRS has directed you to perform CPS No. 9041.01 Jet Pump Operability Test. Document results on CPS 9041.01D001 Jet Pump Operability Test Data Sheet.

Report to the CRS after completing the task.

CLINTON POWER STATION

Job Performance Measure

Perform a Locked High Radiation Area Entry

JPM Number: JPM513

Revision Number: 00

Date: 06/14/13

Developed By:	**G. Thullen**	**06/14/13**
	Instructor	**Date**
Validated By:		
	SME or Instructor	**Date**
Reviewed By:		
	Operations Representative	**Date**
Approved By:		
	Training Department	**Date**

Clinton Power Station
Job Performance Measure (JPM)

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

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

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

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

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

_____ 4. Initial setup conditions are identified.

_____ 5. Initiating cue (and terminating cue if required) are properly identified.

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

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

_____ 8. Verify the procedure(s) referenced by this JPM reflects the current revision:
Procedure _____ Rev: _____
Procedure _____ Rev: _____
Procedure _____ Rev: _____

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

_____ 10. Verify performance time is accurate

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

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

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

_____ _____
SME / Instructor Date

Clinton Power Station
Job Performance Measure (JPM)

Revision Record (Summary)

Revision	Date	Description
00	04/16/2002	This is a new RO Administrative JPM.
01	07/03/02	Unknown update
00	06/14/13	This revision updates JPM 995555.0301 to the current numbering system, new template, and current procedures. It also resets the Revision number to 00.

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:

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

TOOLS, EQUIPMENT, OTHER SPECIAL REQUIREMENTS:

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

PROCEDURAL/REFERENCES:

- RP-AA-210, DOSIMETRY ISSUE, USAGE, AND CONTROL, Rev. 22
- RP-AA-403, ADMINISTRATION OF THE RADIATION WORK PERMIT PROGRAM, Rev. 03
- RP-AA-460, CONTROLS FOR HIGH AND VERY HIGH RADIATION AREAS, Rev. 23a
- RWP 10014550 RT and CT HRA/LHRA Area Generic
- Survey Map for RWCU Pump Room 'A'

EVALUATOR INSTRUCTIONS:

- Amplifying cues are provided within the JPM steps.
- All pre-job briefings are completed.
- Provide the examinee with a copy of the Initial Conditions and Initiating Cue page (back page of the JPM) when providing the initiating cue.
- When the initiating cue has been read to the examinee and the examinee acknowledges the cue, provide the examinee with a copy of the RWP and survey map attached to the back of the JPM.

Clinton Power Station
Job Performance Measure (JPM)

INITIAL CONDITIONS:

Reactor Water Cleanup Pump 'A' is running.

A report was received in the Main Control Room from a non-licensed area operator that there is a puddle of oil on the floor near the 'A' RWCU Pump and that the oil bubbler appears to be low.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Review the attached Survey Map and RWP for the 'A' RWCU Pump Room and determine:

1) The required posting for RWCU Pump Room A at point A.
2) The highest dose area on the attached survey map.
3) The radiological requirements for entering this room to locate the source of the oil leakage.

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

RP-AA-403, Administration of the Radiation Work Permit Program Step 4.6.1
RP-AA-460, Controls for High and Very High Radiation Areas Step 4.7

***JPM Step 1**	**Examinee determines the posting requirements for the 'A' RWCU Pump Room.**
Standard:	**Identifies the intended location on the map and determines:** • **the highest dose rate is 1100 mrem/hr requiring the room to be posted as a Locked High Radiation Area (LHRA)** • **the highest contamination levels in the room at 40,000 dpm/100cm2 at point 2 requiring the room to be posted as a Contamination Area (CA)**
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

***JPM Step 2**	**Examinee determines the areas containing the highest dose rates in the 'A' RWCU Pump Room.**
Standard:	**Reviews the survey map and determines the highest dose rate in the 'A' RWCU Pump Room is 1100 mrem/hr**
Cue:	
Comments	

Clinton Power Station
Job Performance Measure (JPM)

SAT ☐ UNSAT ☐ Comment Number _____

***JPM Step 3**	**Examinee determines the radiological requirements for entering the 'A' RWCU Pump room.**
Standard:	Minimum requirements: 1. Logged onto RWP10014550 2. DLR and Electronic Dosimeter 3. A specific HRA/LHRA briefing 4. A full set of protective clothing must be worn consisting of coveralls, hardhat cover, cotton liners, 1 pair rubber gloves, rubber shoe covers and booties 5. Continuous RP coverage
Cue:	
Comments	

SAT ☐ UNSAT ☐ Comment Number _____

TERMINATING CUES:

The proper method for entering a Locked High Radiation Area (LHRA) and Contamination Area (CA) for the area has been demonstrated

STOP TIME: _____

Clinton Power Station
Job Performance Measure (JPM)

Operator's Name: _____

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

JPM Title: Perform a Locked High Radiation Area Entry

JPM Number: JPM513 Revision Number: 00

Task Number and Title: 995555.03, Complete in-plant radiological practices for a locked high radiation area

K/A System	K/A Number	Importance (RO/SRO)	
Generic	2.3.7	3.5	3.6
Ability to comply with radiation work permit requirements during normal or abnormal conditions.			

Suggested Testing Environment: Plant/Classroom

Actual Testing Environment: ■ Simulator ☐ Plant ☐ Control Room

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

Time Critical: ☐ Yes ■ No

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

References:

- RP-AA-210, Dosimetry Issue, Usage, And Control, Rev. 22
- RP-AA-403, Administration Of The Radiation Work Permit Program, Rev. 03
- RP-AA-460, Controls For High And Very High Radiation Areas, Rev. 23a
- RWP 1000422, RT and CT HRA/LHRA Area Generic
- Survey Map for RWCU Pump Room A

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

Radiation Work Permit

Worker Information

RWP#: 10014550 Rev: **0**

RWP Description: Investigate oil leak in RWCU Pump Room 'A'

Unit:	Building:	Elevation:	Location:
1	All	All	Various

Equipment: Various

RWP Dose Approval:	100 mrem
ED Dose Alarm:	80 mrem
Dose Rate Alarm:	1000 mrem/hr

Exposure Monitoring Requirements

DLR and Electronic Dosimeter

Teledosimetry may be used in lieu of standard ED.

Respiratory Protection Required

Radiation Protection shall evaluate for engineering control and respiratory protection per RP-AA-401

Special Instructions

This RWP allows High Radiation and Locked High Radiation Area access: A specific HRA/LHRA briefing is required to enter.

Electronic Dosimeters should be checked at approximately 15 minute intervals or more often in higher radiation areas.

Radiation Worker Pocket Data Sheet "Trip Ticket" will be used by each individual for each entry.

TIP area entry controlled by RP-AB-460 TIP AREA ACCESS

Contact RP prior to accessing areas above 7 ft.

Stop Work Limits:

1. GA dose rates =/> 1000 mr/hr
2. GA contamination levels =/> 200k dpm/100cm2
3. Airborne radioactivity =/> 0.3 DAC

Protective Clothing Requirements

Protective Clothing (≤ 100,000 dpm/100 cm2)

Coveralls, Hardhat cover, cotton liners, 1 pair rubber gloves, rubber shoe covers and booties

Protective Clothing (< 10,000 dpm/100 cm2)
RP APPROVAL REQUIRED

Modesty garments, rubber shoe covers and booties, cotton liners, 1 pair rubber gloves

Company modesty garments shall be worn under PC's.

Protective Clothing (> 100,000 dpm/100 cm2)

PCs consists of:
Full hood, hard hat cover, coveralls, shoe covers, shoe rubbers, glove liners, 1 pair rubber gloves. Additional protective clothing (e.g. paper suit, nylon, rubber) may be prescribed based upon contamination form (i.e. wet, dry or greasy material) or extended activities in contaminated areas (>100,000 dpm/100cm2)

Company modesty garments shall be worn under PC's

Clinton Power Station

Radiation Work Permit

Radiation Protection Information

RWP#: 10014550 Rev: **0**

Survey Frequency Requirements:

Radiation : R

Contamination: R

Airborne: R

Shielding Recommended:

☑ None

Temporary

Permanent

Pre-Job Briefing Notes:

RPT Coverage / Comments:

Initial

Intermittant

☑ **Continuous**

Continuous RP for LHRA entry

Clinton Power Station

Radiation Work Permit

Continuation Sheet

RWP#: 10014550 Rev: **0**

Continuation Sheet

When using remote communication devices (Telex, PCS phone) items should be inside PC's or secured in a pouch. Teledosimetery should be secured inside pocket unless directed by Radiation Protection

FOR TRAINING USE ONLY

RP-1125-04
11/28/2009

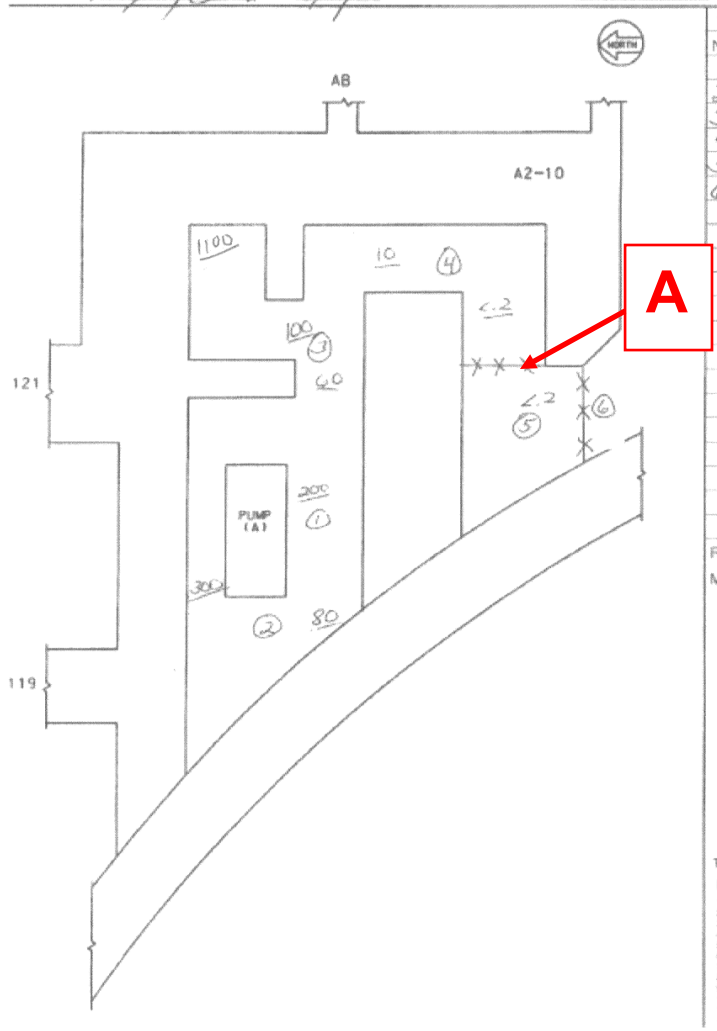
CPS RADIOLOGICAL SURVEY SHEET
Aux. Building - 737'EL.
Reactor Water Cleanup Pump 'A'

Survey Index No: 4-28-13 . 06
Date IndexNo

Date: 4-28-13 Time: 1115
Type: ☐RWP ☒Other: Job Coverage
Performed By:
Counted By:
Reviewed By: Date: 4/28/13

	RADIATION	CONTAMINATION
Inst. Type	RO2	RM-25
Serial #	3361	355
Cal Due Date	10-A-13	8-22-13

Rx Power 97% Bkgd: 60 (cpm)



Smear/Location No	dpm/100cm²	Smear/Location No	/
1	25000		
2	40,000		
3	20,000		
4	10,000		
5	6,000		
6	<1K		
			NA
	NA		

Remarks:
MRRR/RWP: 100145550

Tech Dose Received: <2 mR
Notes: Gross Maximum (~100 ft²)

1. Gen. Area Dose Rates in mRem/hr.
2. * # / # = Contact/30cm Dose Rates
3. Smears Taken at Circled Locations
4. -X-X- = Radiological Boundary
5. RCA = Radiological Control Area
6. CA = Contaminated Area
7. HCA = High Contamination Area
8. RA = Radiation Area
9. HRA = High Radiation Area
10. LHRA= Locked High Radiation Area
11. T = Transfer Area
12. CAB = Clean Area Boundary

FOR TRAINING USE ONLY

INITIAL CONDITIONS:

Reactor Water Cleanup Pump 'A' is running.

A report was received in the Main Control Room from a non-licensed area operator that there is a puddle of oil on the floor near the 'A' RWCU Pump and that the oil bubbler appears to be low.

INITIATING CUE:

CAUTION

- All pre-job briefings are completed.

Review the attached Survey Map and RWP for the 'A' RWCU Pump Room and determine:

1) The required posting for RWCU Pump Room A at point A.
2) The highest dose area on the attached map.
3) The radiological requirements for entering this room to locate the source of the oil leakage.

Clinton Power Station

Radiation Work Permit

Worker Information

RWP#: 10014550 Rev: **0**

RWP Description: Investigate oil leak in RWCU Pump Room 'A'

Unit:	Building:	Elevation:	Location:
1	All	All	Various
Equipment:	Various		

RWP Dose Approval:	100 mrem
ED Dose Alarm:	80 mrem
Dose Rate Alarm:	1000 mrem/hr

Exposure Monitoring Requirements

DLR and Electronic Dosimeter

Teledosimetry may be used in lieu of standard ED.

Respiratory Protection Required

Radiation Protection shall evaluate for engineering control and respiratory protection per RP-AA-401

Special Instructions

This RWP allows High Radiation and Locked High Radiation Area access: A specific HRA/LHRA briefing is required to enter.

Electronic Dosimeters should be checked at approximately 15 minute intervals or more often in higher radiation areas.

Radiation Worker Pocket Data Sheet "Trip Ticket" will be used by each individual for each entry.

TIP area entry controlled by RP-AB-460 TIP AREA ACCESS

Contact RP prior to accessing areas above 7 ft.

Stop Work Limits:

1. GA dose rates =/> 1000 mr/hr
2. GA contamination levels =/> 200k dpm/100cm2
3. Airborne radioactivity =/> 0.3 DAC

Protective Clothing Requirements

Protective Clothing (≤ 100,000 dpm/100 cm2)

Coveralls, Hardhat cover, cotton liners, 1 pair rubber gloves, rubber shoe covers and booties

Protective Clothing (< 10,000 dpm/100 cm2)
RP APPROVAL REQUIRED

Modesty garments, rubber shoe covers and booties, cotton liners, 1 pair rubber gloves

Company modesty garments shall be worn under PC's.

Protective Clothing (> 100,000 dpm/100 cm2)

PCs consists of:
Full hood, hard hat cover, coveralls, shoe covers, shoe rubbers, glove liners, 1 pair rubber gloves. Additional protective clothing (e.g. paper suit, nylon, rubber) may be prescribed based upon contamination form (i.e. wet, dry or greasy material) or extended activities in contaminated areas (>100,000 dpm/100cm2)

Company modesty garments shall be worn under PC's

FOR TRAINING USE ONLY

Clinton Power Station

Radiation Work Permit

Radiation Protection Information

RWP#: 10014550 Rev: **0**

Survey Frequency Requirements:

Radiation : **R**

Contamination: **R**

Airborne: **R**

Shielding Recommended:

☑ None

Temporary

Permanent

Pre-Job Briefing Notes:

RPT Coverage / Comments:

Initial

Intermittant

☑ **Continuous**

Continuous RP for LHRA entry

FOR TRAINING USE ONLY

Clinton Power Station

Radiation Work Permit

Continuation Sheet

RWP#: 10014550 Rev: **0**

Continuation Sheet

When using remote communication devices (Telex, PCS phone) items should be inside PC's or secured in a pouch. Teledosimetery should be secured inside pocket unless directed by Radiation Protection

FOR TRAINING USE ONLY

RP-1125-04
11/28/2009

CPS RADIOLOGICAL SURVEY SHEET

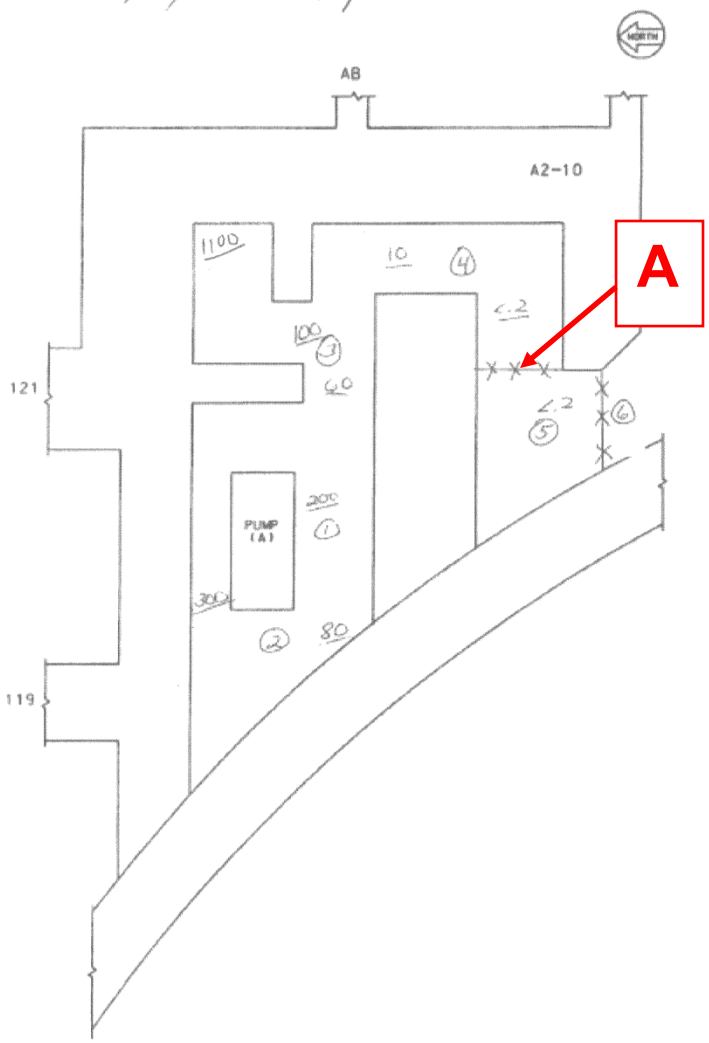
Aux. Building - 737'EL.
Reactor Water Cleanup Pump 'A'

Survey Index No: 4-28-13 (Date) - 06 (Index No)

Date: 4-28-13 Time: 1145
Type: ☐ RWP ☒ Other: Job Coverage
Performed By:
Counted By:
Reviewed By: Date: 4/28/13

	RADIATION	CONTAMINATION
Inst. Type	RO2	RM-25
Serial #	3361	355
Cal Due Date	10-A-13	8-22-13

Rx Power 97% Bkgd. 60 (cpm)



Smear/Location No	dpm/100cm²	Smear/Location No	
1	25000		
2	40,000		
3	20,000		
4	10,000		
5	6,000		
6	<1K		
			N/A
	N/A		

Remarks:
MRRR/RWP: 100/46550

Tech Dose Received: 2 mR
Notes:

1. Gen. Area Dose Rates in mRem/hr.
2. * # / # = Contact/30cm Dose Rates
3. Smears Taken at Circled Locations
4. X-X = Radiological Boundary
5. RCA = Radiological Control Area
6. CA = Contaminated Area
7. HCA = High Contamination Area
8. RA = Radiation Area
9. HRA = High Radiation Area
10. LHRA= Locked High Radiation Area
11. T = Transfer Area
12. CAB = Clean Area Boundary

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