

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION:	SALEM		
SYSTEM:	Generic Admin – Radiation Control		
TASK:	Determine Personnel Exposure and Authorization for Containment entry at power		
TASK NUMBER:	1200100104		
JPM NUMBER:	20-01 NRC SRO-A4		
ALTERNATE PATH:	<input type="checkbox"/>	K/A NUMBER:	G 2.3.4
APPLICABILITY:		IMPORTANCE FACTOR:	
EO <input type="checkbox"/>	RO <input type="checkbox"/>	STA <input type="checkbox"/>	SRO <input checked="" type="checkbox"/>
EVALUATION SETTING/METHOD:	Classroom / Simulate		
REFERENCES:	Radiological Survey Map Dated 8-5-21, RP-SA-102 R0, SC.SA-ST.ZZ-0001 R5, RP-AA-300 R6, RP-AA-463 R6, RP-AA-203 R6 (checked 10-5-21)		
TOOLS AND EQUIPMENT:	None		
VALIDATED JPM COMPLETION TIME:	<u>20 minutes</u>		
TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS:	<u>N/A</u>		
Developed By:	R. Chan Instructor	Date:	12-29-21
Validated By:	M. Protesto SME or Instructor	Date:	1-4-22
Approved By:	M. Wadusky(Signature On file) Training Department	Date:	2-11-22
Approved By:	W Hargrave Operations Department	Date:	1-10-22
ACTUAL JPM COMPLETION TIME:			
ACTUAL TIME CRITICAL COMPLETION TIME:			
PERFORMED BY:			
GRADE:	<input type="checkbox"/> SAT	<input type="checkbox"/> UNSAT	
REASON, IF UNSATISFACTORY:			
EVALUATOR'S SIGNATURE:			DATE:

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SIMULATOR SETUP INSTRUCTIONS

SYSTEM: Generic Administrative – Radiation Control

TASK: Determine Personnel Exposure and Authorization for Containment entry at power

TASK NUMBER: 1200100104

SIMULATOR IC: N/A

MALFUNCTIONS / REMOTES: N/A

OVERRIDES: N/A

SPECIAL INSTRUCTIONS:

PROVIDE copies of the following documents:

- ◆ Radiological Survey Map dated 8-5-21 (**MAKE SUREY MAP ENLARGED TO 11 X 17**)
- ◆ RP-SA-102, Containment entries at power
- ◆ SC.SA-ST.ZZ-0001 Salem containment entries in Modes 1 through 4
- ◆ RP-AA-300, Radiological Survey Program
- ◆ RP-AA-463, High radiation area key controls
- ◆ RP-AA-203, Exposure control and authorization

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TASK: Determine Personnel Exposure and Authorization for Containment entry at power

TASK NUMBER: 1200100104

INITIAL CONDITIONS:

- Salem 2 is at 100% power reducing power at 10% per hour to perform Turbine valve testing.
- The 22 CFCU has been declared inoperable.
- Tagging has been completed.

INITIATING CUE:

- You are the WCCS and need to send operators into containment to remove tags to allow work on 22 CFCU disassembly to continue.
- Operator A has 1992 mrem TEDE for the year and Operator B has 1496 mrem TEDE for the year so far.
- Using the provided Radiological Survey Map and procedures, determine the following:
 1. Whose authorization outside of Operations, by position, is needed to enter the containment during the downpower?
 2. In accordance with the provided survey map perform the following:
 - 2.1. Calculate the dose for each operator (Assume both operators **each** take 12 minutes in the area to perform their tagging evolution):
 - Gamma dose _____ mrem
 - Neutron dose _____ mrem
 - 2.2. Will the operators exceed the Administrative Annual Dose limit? If so, identify which Operator(s)?

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

Task Standard for Successful Completion:

1. **Determines the Radiation Protection Supervisor must authorize entry**
2. **Determines Gamma dose for each operator 1 mrem**
3. **Determines Neutron Dose each operator 8 mrem**
4. **Determines Operator A total dose is 2001 mrem and Operator B total dose is 1505 mrem, Operator A exceeds administrative dose control limit of 2000 mrem.**

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* #	STEP NO.	STEP (Shaded area denotes Critical Step) (* Critical Step) (# Sequential Critical Step)	STANDARD (Bolded area identifies Task Standard)	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		<p>PROVIDE copies of the following documents:</p> <ul style="list-style-type: none"> ◆ RP-AA-463, High Radiation Area Key Controls ◆ Radiological Survey Map dated 8-5-21 ◆ RP-SA-102, Containment entries at power ◆ SC.SA-ST.ZZ-0001 Salem containment entries in Modes 1 through 4 ◆ RP-AA-300, Radiological Survey Program ◆ RP-AA-203, Exposure control and authorization 			
	CUE:	<p>PROVIDE the operator the initiating cue AND ENTER START TIME AFTER operator repeats back the Initiating Cue.</p> <p>START TIME: _____</p>			

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* #	STEP NO.	STEP (Shaded area denotes Critical Step) (* Critical Step) (# Sequential Critical Step)	STANDARD (Bolded area identifies Task Standard)	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	1.0	Whose authorization outside of Operations, by position, is needed to enter the containment during the downpower?	Radiation Protection Supervisor(RPS) as designated in RP-SA-102 and SC.SA-ST.ZZ-0001		
*	2.1.A	Calculate the dose for each team member: • Gamma dose _____ mrem	<u>Gamma dose</u> 12 minutes/60 minutes X 5 mrem/hr = 1 mrem		
*	2.1.B	Calculate the dose for each team member: • Neutron dose _____ mrem	<u>Neutron dose</u> 12 minutes/60 minutes X 40 mrem/hr = 8 mrem		
*	2.2	Will the operators exceed the Administrative Annual Dose limit? If so, identify which Operator(s)?	<u>Yes, Operator A only</u> <u>Operator A is at 2001 mrem</u> <u>Operator B is at 1505 mrem</u> <u>Administrative dose control limit(ADCL) is 2000 mrem</u> <u>A – 1 mrem above ADCL</u> <u>B - 495 mrem below ADCL</u>		

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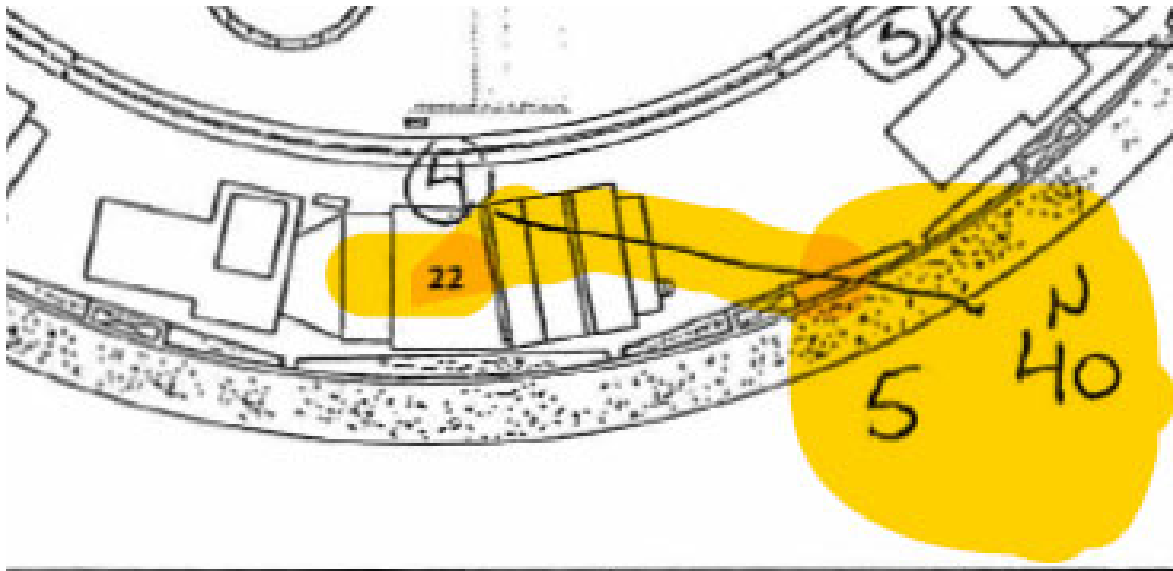
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	CUE:	<u>WHEN</u> operator informs you the task is complete, OR the JPM has been terminated for other reasons, <u>THEN</u> RECORD the STOP TIME. STOP TIME: _____	Terminate JPM after SRO submits the response to you.		

2.4 **ENSURE** that prior approval from the Radiation Protection Supervisor (RPS) is obtained by RP for access to the following restricted areas during Modes 1 and 2:

- Entry into the containment during planned power changes (up or down) in excess of five percent per hour.
- Entry into containment during abnormal operating conditions/evolutions that may affect containment radiological conditions during the time of entry, i.e. placing excess letdown in service, significantly changing charging flow, letdown flow, or pressurizer spray flow including changing pressurizer heaters.



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4.2. Authorization To Raise Administrative Dose Control Levels (ADCLs)

4.2.1. **USE** Attachment 1, Dose Control Level Extension Form, or a computerized equivalent, to authorize exposures for adult individuals in excess of 2000 mrem routine TEDE in a year.

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM#: 20-01 NRC SRO-A4

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: _____

Applicant Name: _____

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[Provide your answers on this cue sheet]

