

**OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE**

STATION:	SALEM		
SYSTEM:	Radiation Control - Administrative		
TASK:	Determine radiological dose and stay time limits for a Containment entry.		
TASK NUMBER:	N1200100104		
JPM NUMBER:	20-01 ILOT RO-A4		
ALTERNATE PATH:	<input type="checkbox"/>	K/A NUMBER:	2.3.13
APPLICABILITY:	IMPORTANCE FACTOR:		
EO <input type="checkbox"/>	RO <input checked="" type="checkbox"/>	STA <input type="checkbox"/>	SRO <input type="checkbox"/>
		3.4	3.8
		RO	SRO
EVALUATION SETTING/METHOD:	Classroom		
REFERENCES:	Radiological Survey Map Dated 8-5-21, RP-AA-300, Rev 6 (checked 10-25-21)		
TOOLS AND EQUIPMENT:	Calculator		
VALIDATED JPM COMPLETION TIME:	<u>10 minutes</u>		
TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS:	<u>N/A</u>		
Developed By:	R. Chan Instructor	Date:	1-10-22
Validated By:	Pompper / Wilcox SME or Instructor	Date:	1-10-22
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:

**OPERATOR TRAINING PROGRAM
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NAME: _____

DATE: _____

SYSTEM: RADIATION CONTROL - ADMINISTRATIVE

TASK: Determine radiological dose and stay time limits for a Containment entry.

TASK N1200100104

INITIAL

- ◆ Salem is in mode 1 at 100%.
- ◆ The 22 CFCU has been declared inoperable.
- ◆ Tagging has been completed.

INITIATING CUE:

- You have been directed by the WCCS to determine stay times for entering containment to hang additional tags on 22 CFCU.
- **Assume** the following:
 - Safety has determined the heat stress stay time to be 15 minutes
 - Radiation protection has limited total dose received by individual to 0.002 REM gamma and 0.008 REM Neutron

1. In accordance with the provided survey map perform the following:

1.1. Calculate the following for the Operator:

- Gamma dose stay time _____ minutes
- Neutron dose stay time _____ minutes

1.2. Determine most limiting allowable time for containment entry team based on ALARA and Heat Stress:

- Limiting containment entry time _____ minutes

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.

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Task Standard for Successful Completion:

- 1. Determines that based on the dose limits Gamma dose stay time is 24 minutes, Neutron dose stay time is 12 minutes, and heat stress stay time is 15 minutes. Determines that limiting entry time will be based on Neutron dose at 12 minutes.**

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NAME: _____
DATE: _____

SYSTEM: RADIATION CONTROL – ADMINISTRATIVE
TASK: Determine radiological dose and stay time limits for a Containment entry.

*	STEP NO.	STEP (*Denotes a Critical Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	CUE	<p>Provide the following:</p> <ul style="list-style-type: none"> ◆ Survey map (#2213000, dated 8-5-21) for S2 CTMT 130' GENERAL AREA ◆ RP-AA-300, Radiological Survey Program ◆ Calculator 	<p><u>Examiners Note:</u></p> <p>MAKE SURE THAT THE SURVEY MAP IS ENLARGED TO ATLEAST A 11 X 17 SIZE PRINT FOR READABILITY.</p>		
	CUE	<p>START TIME: _____</p>			
*	1.1.A	<p>Calculate the following for the operator,</p> <p>Neutron dose stay time:</p>	<p>Operator refers to survey map</p> <p>Per the survey map and using the given assumption for 22 CFCU Area dose rate; selects <u>neutron</u> dose rate of <u>40 mrem/hr</u></p> <p>Limit is 0.008 REM or 8 mrem neutron.</p> <p>$(8 \text{ mrem}/40 \text{ mrem/hr}) \times 60 \text{ min/hr} =$ 12 Minutes</p>		

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DATE: _____

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*	STEP NO.	STEP (*Denotes a Critical Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	1.1.B	Gamma dose stay time:	<p>Per the survey map and using the given assumption for 22 CFCU Area dose rate; selects <u>gamma</u> dose rate of <u>5 mrem/hr</u></p> <p>Limit is 0.002 REM or 2 mrem gamma</p> <p>$(2 \text{ mrem}/5\text{mrem/hr}) \times 60 \text{ minutes/hr} =$ 24 minutes</p>		
*	1.2	Determine most limiting allowable time for containment entry team based on ALARA and Heat Stress	12 minutes due to Neutron Dose		
		STOP TIME: _____	Terminate JPM when candidate has submitted cue sheet to Evaluator.		

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.

- ___KH___ 1. Task description and number, JPM description and number are identified.
- ___KH___ 2. Knowledge and Abilities (K/A) references are included.
- ___KH___ 3. Performance location specified. (in-plant, control room, or simulator)
- ___KH___ 4. Initial setup conditions are identified.
- ___KH___ 5. Initiating and terminating Cues are properly identified.
- ___KH___ 6. Task standards identified and verified by SME review.
- ___KH___ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).
- ___KH___ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure: Procedure Rev. _06_____ Date ___1/25/2017___
- ___KH___ 9. Pilot test the JPM:
a. verify Cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.
- ___NA___ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- ___KH___ 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: _____

INITIAL CONDITIONS:

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INITIATING CUE:

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1. In accordance with the provided survey map perform the following:

1.1 Calculate the following for the Operator:

- Gamma dose stay time _____minutes
- Neutron dose stay time _____minutes

1.2 Determine most limiting allowable time for containment entry team based on ALARA and Heat Stress:

- Limiting containment entry time _____minutes

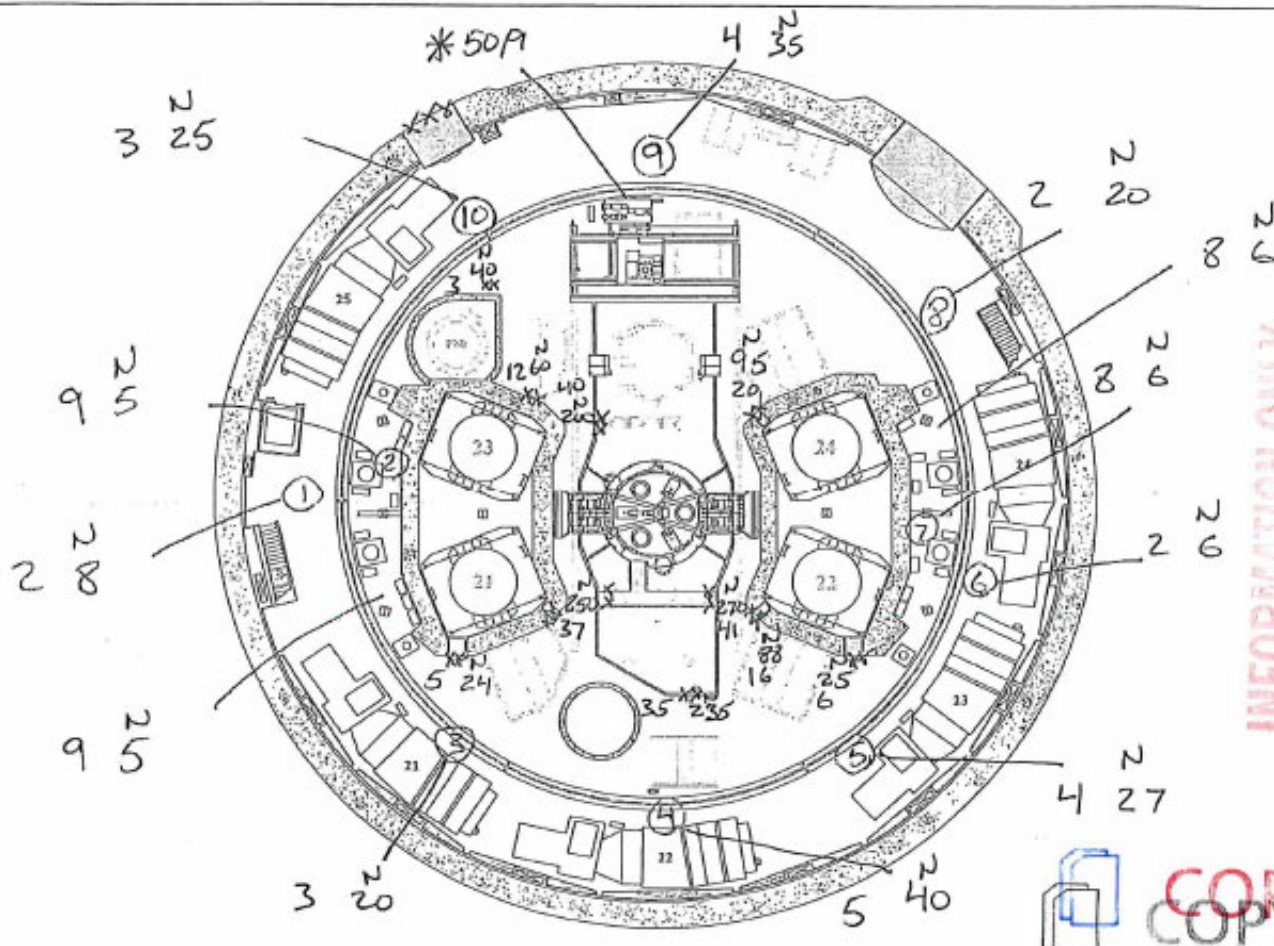
[Place your response on this cue sheet]



Radiological Survey

MAP #

2213000



COPY
COPY

Location: S2 CTMT 130' GENERAL AREA Date: 8/5/21 Time: 1340 RWP: 3

Surveyed By:		Radiation Survey		Contamination Survey	
Print KRUPA / BURDSALL	Instrument TPOUK	Serial# 6610-064	β, γ	Instrument RM14	Serial# 8275
Sign <i>[Signature]</i>	Instrument LUD 30	Serial# 7003	α	Instrument N	Serial# A

Contamination β, γ				Contamination α			
LOC	dpm/100cm ²	LOC	dpm/100cm ²	LOC	dpm/100cm ²	LOC	dpm/100cm ²
1	< 1 K	6	< 1 K	N			
2		7					
3		8					
4		9					
5	< 1 K	10	< 1 K				A

COMMENTS: CTMT PZR 'S' RING Rx CAVITY 101⁹ WBGT

Routine HRA LHRA LHRA LHRA

S.O.J. NA MRP MRP MRP

Other SA (LOCKED) (LOCKED) (LOCKED)

Rx Power: 100%

Supervisor Review

Print / Sign: B. ACHUFF / *[Signature]* DATE: 8/5/21