OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM

SYSTEM: Administrative – Radiation Control

TASK: Determine Personnel Exposure and Special Requirements into A Radiologically Controlled Area

TASK NUMBER: 1200100104

JPM NUMBER: 17-01 NRC RO-A3

ALTERNATE PATH: [ ]

K/A NUMBER: G 2.3.4

IMPORTANCE FACTOR: 3.2 (RO) / (SRO)

APPLICABILITY:
EO [ ] RO [X] STA [ ] SRO [ ]

EVALUATION SETTING/METHOD: Classroom / Simulate

REFERENCES: Radiological Survey Map #1108410 dated 5-18-18 (checked 9-14-18)
RP-AA-460, Rev. 19, RP-AA-463, Rev. 5, RP-AA-300, Rev. 6

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 15 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

Rudolph Chan

Developed By: R. Chan, Instructor **Date:** 12-4-18

Validated By: Raymond / Bell (Rev. 0), SME or Instructor **Date:** 9-14-18

Approved By: Training Department **Date:** 12/11/18

Approved By: MYERS, Operations Department **Date:** 12/7/18

ACTUAL JPM COMPLETION TIME:

ACTUAL TIME CRITICAL COMPLETION TIME:

PERFORMED BY:

GRADE: [ ] SAT [ ] UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: **DATE:**

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REVISION HISTORY

JPM NUMBER: 17-01 NRC RO-A3

Rev #	Date	Description	Validation Required
00	9-14-18	**This is a NEW JPM**. Added revision history and simulator setup pages. Editorial comments from IP 71111.11 FASA.	Yes
01	12-4-18	Incorporated NRC Prep week comments. Modified HRA briefing sheet to increase dose rate alarm setpoint to 250 mrem/hr to avoid conflict with survey map dose rate of 205 mrem/hr. This change is an enhancement and re-validation is not required.	No

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SIMULATOR SETUP INSTRUCTIONS

SYSTEM: Administrative – Radiation Control

TASK: Determine Personnel Exposure and Special Requirements into A Radiologically Controlled Area

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 #1108410, S1 AUX 084' PIPE ALLEY (dated 5-18-18)
- HRA Briefing Sheet
- RP-AA-300, Radiological Survey Program
- RP-AA-460, Controls for High and Very High Radiation Areas

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

SYSTEM: Administrative – Radiation Control

TASK: Determine Personnel Exposure and Special Requirements into A Radiologically Controlled Area

TASK NUMBER: 1200100104

INITIAL CONDITIONS:

- Salem 1 is at 100% power.
- A Locked Valve surveillance IAW S1.OP-ST.CAN-0001, Primary Containment Valves Monthly, is scheduled to be performed on your shift.
- One of the valves to be verified is located in the Unit 1 Pipe Alley, Elevation 84 ft. Auxiliary Building.
- An entry into the Pipe Alley has been made since the last performance of this surveillance requiring this valve position to be verified.

INITIATING CUE:

- You are the WCC RO and have been assigned to perform the valve verification in the Unit 1 Pipe Alley.
- Using the provided Radiological Survey Map and procedures, determine the following:

1. What is the Radiological Posting for the area that the task will be performed?
2. What is the highest On Contact radiation dose rate?
3. What is the highest General Area dose rate?
4. What protective clothing is required to enter this area?
5. Calculate your personnel dose exposure. Assume the following:
   - it will take 1 minute to complete the task
   - use the highest On Contact radiation dose rate as the General Area dose rate for the room

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. **High Radiation Area (HRA), Contaminated Area (CA)**
2. **205 mrem/hr**
3. **10 mrem/hr**
4. **Protective Clothing: lab coat, booties and rubber gloves**
5. **3.42 mrem (if rounded up 3.5 is acceptable)**

OPERATOR TRAINING PROGRAM
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NAME: _____
DATE: _____

SYSTEM: Administrative – Radiation Control
TASK: Determine Personnel Exposure and Special Requirements into A Radiologically Controlled Area

* #	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)
		PROVIDE copies of the following documents: 1. Radiological Survey Map #1108410, S1 AUX 084' PIPE ALLEY (dated 5-18-18) 2. HRA Briefing Sheet 3. RP-AA-300, Radiological Survey Program 4. RP-AA-460, Controls for High and Very High Radiation Areas			
	CUE:	**PROVIDE** the operator the initiating cue AND **ENTER** START TIME AFTER operator repeats back the Initiating Cue. **START TIME:**_____			

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative – Radiation Control
TASK: Determine Personnel Exposure and Special Requirements into A Radiologically Controlled Area

* #	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)
*		What is the Radiological Posting for the area that the task will be performed?	**Operator refers to Radiological Survey Map and determines that the work area is in a <u>High Radiation Area (HRA) and Contaminated Area (CA)</u>**		
*		What is the highest On Contact radiation dose rate?	**Operator refers to Radiological Survey Map and determines that the highest On Contact radiation dose rate is <u>205 mrem/hr</u>.** **Evaluator's Note:** RP-AA-300, Attachment 2 provides definitions of survey map symbols and abbreviations.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Administrative – Radiation Control
TASK: Determine Personnel Exposure and Special Requirements into A Radiologically Controlled Area

* #	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)
*		What is the highest General Area dose rate?	**Operator refers to Radiological Survey Map and determines that the highest General Area (GA) radiation dose rate is <u>10 mrem/hr</u>.** **Evaluator's Note:** RP-AA-300, Attachment 2 provides definitions of survey map symbols and abbreviations.		
*		What special requirement is needed to enter this area?	**Operator reviews the HRA briefing sheet and determines that Protective Clothing (lab coat, booties and rubber gloves) are required for entry into CA.**		
*		Calculate your personnel dose exposure. Assume the following: ▪ it will take 1 minute to complete the task ▪ use the highest On Contact radiation dose rate as the General Area dose rate for the room	**Operator calculates the following:** **[205 mrem/hr x 1 hr/60 mins] x 1 min** **= <u>3.42 mrem</u> (round up to 3.5 mrem acceptable)**		
	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 RO submits the response to you.**		

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM#: 17-01 NRC RO-A3

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

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NA 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.

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

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SME/Instructor: NA Date: _____

SME/Instructor: _____ Date: _____

SME/Instructor: _____ Date: _____

INITIAL CONDITIONS:

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- One of the valves to be verified is located in the Unit 1 Pipe Alley, Elevation 84 ft. Auxiliary Building.
- An entry into the Pipe Alley has been made since the last performance of this surveillance requiring this valve position to be verified.

INITIATING CUE:

- You are the Unit 1 CRS.
- Using the provided Radiological Survey Map and procedures, determine the following:

1. What is the Radiological Posting for the area that the task will be performed?

2. What is the highest On Contact radiation dose rate?

3. What is the highest General Area dose rate?

4. What protective clothing is required to enter this area?

5. Calculate your personnel dose exposure. Assume the following:
   - it will take 1 minute to complete the task
   - use the highest On Contact radiation dose rate as the General Area dose rate for the room

[Provide your answers on this Cue Sheet]

RP-AA-460

Attachment 2, HRA and Above Briefing Form

Work Area: Salem U1 Pipe Alley, 84 ' Aux Building
RWP #: 1 Task #: 010 Date: Today

Briefing Content

- ☐ This is a High Radiation Area (HRA) brief
- ☐ Review Radiological Survey Map # 1108410, S1 AUX 084' PIPE ALLEY to identify work area.
  - o Work area inside Unit 1 Pipe Tunnel area to perform valve lineup verification IAW S1.OP-ST.CAN-0001
- ☐ Identify permitted activities for the area
  - o Operator inspection of valves only
  - o No climbing
- ☐ Discuss required dosimetry, high noise (if applicable), area dose rates, and low dose areas
- ☐ Discuss dosimeter accumulated dose alarm **10** mrem and response
  - o Leave the area, close and lock the door and notify RP
- ☐ Discuss dosimeter dose rate alarms **250** mrem/hr and response
  - o Leave the area, close and lock the door and notify RP
- ☐ Check SRD every 15 minutes while in the area
- ☐ Conduct self-check of SRD alarm setpoints against setpoints noted in the briefing
- ☐ Discuss proper control of barricades and postings entering and exiting the area
  - o Ensure the door is closed and locked
- ☐ Protective Clothing:
  - o Lab coat, booties and rubber gloves are required to be worn in this area
  - o Extra sets of gloves and booties are located near the step off pad area
- ☐ This concludes the HRA briefing