

**OPERATOR TRAINING PROGRAM  
JOB PERFORMANCE MEASURE**

<b>STATION:</b>	SALEM		
<b>SYSTEM:</b>	Generic Administrative Topic – Equipment Control		
<b>TASK:</b>	Identify Components to Isolate a Service Water System Leak Using Station Drawings		
<b>TASK NUMBER:</b>	N1220050302		
<b>JPM NUMBER:</b>	19-01 NRC RO-A3		
<b>ALTERNATE PATH:</b>	<input type="checkbox"/>	<b>K/A NUMBER:</b>	2.2.41
<b>APPLICABILITY:</b>		<b>IMPORTANCE FACTOR:</b>	3.5
EO <input type="checkbox"/>	RO <input checked="" type="checkbox"/>	STA <input type="checkbox"/>	SRO <input type="checkbox"/>
			RO                      SRO
<b>EVALUATION SETTING/METHOD:</b>	Classroom / Perform		
<b>REFERENCES:</b>	205342 Sheets 1 thru 7 (checked 1-15-20)		
<b>TOOLS AND EQUIPMENT:</b>	None		
<b>VALIDATED JPM COMPLETION TIME:</b>	<u>30 min</u>		
<b>TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS:</b>	<u>N/A</u>		
<b>Developed By:</b>	R. Chan Instructor	<b>Date:</b>	1-15-20
<b>Validated By:</b>	Klein / Weidner SME or Instructor	<b>Date:</b>	1-16-20
<b>Approved By:</b>	N/A Training Department	<b>Date:</b>	
<b>Approved By:</b>	N/A Operations Department	<b>Date:</b>	
<b>ACTUAL JPM COMPLETION TIME:</b>			
<b>ACTUAL TIME CRITICAL COMPLETION TIME:</b>			
<b>PERFORMED BY:</b>			
<b>GRADE:</b>	<input type="checkbox"/> SAT	<input type="checkbox"/> UNSAT	
<b>REASON, IF UNSATISFACTORY:</b>			
<b>EVALUATOR'S SIGNATURE:</b>			<b>DATE:</b>

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**REVISION HISTORY**

**JPM NUMBER: 19-01 NRC RO-A3**

<b>Rev #</b>	<b>Date</b>	<b>Description</b>	<b>Validation Required</b>
00	7-30-19	<b>NEW JPM for 19-01 NRC ILOT Exam.  K/A 2.2.41: Ability to obtain and interpret station electrical and mechanical drawings. RO 3.5 / SRO 3.9</b>	Yes

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**SIMULATOR SETUP INSTRUCTIONS**

**SYSTEM:** Generic Administrative Topic – Equipment Control

**TASK:** Identify Components to Isolate a Service Water System Leak Using Station Drawings

**TASK NUMBER:** N1220050302

**SIMULATOR IC:** N/A

**MALFUNCTIONS / REMOTES:** N/A

**OVERRIDES:** N/A

**SPECIAL INSTRUCTIONS:**

1. **PROVIDE** clean copies of P&ID drawing 205342 sheets 1 thru 7.
2. **PROVIDE** highlighter or marker.

## OPERATOR TRAINING PROGRAM JOB PERFORMANCE MEASURE

**SYSTEM:** Generic Administrative Topic – Equipment Control

**TASK:** Identify Components to Isolate a Service Water System Leak Using Station Drawings

**TASK NUMBER:** N1220050302

### INITIAL CONDITIONS:

- Unit 2 is in a Refueling outage with the reactor defueled.
- A Service Water leak has been identified by your field operator on a 2 inch drain valve (21SW268) near the 21SW76 valve inside the SW Valve Room, Auxiliary Building.
- The 21SW76 is a manual isolation valve for the SW outlet of 21 CFCU.
- The 21SW268, 21 NUC HDR FROM FCV DRAIN, is a 2 inch drain valve downstream of the 21SW76, 21 CFCU SW OUTLET VLV.
- The field operator reports that the leak is at the body to bonnet location of the valve.

### INITIATING CUE:

- You are the Work Control NCO.
- The Work Control SRO directs you to identify the **minimum** number of components needed to isolate the leak.
- Drains and vents are NOT required to be identified at this point.
- A complete work clearance (tagout) with all required blocking points will be performed in accordance with station procedures after leak isolation.
- Assume check valves will function as designed with no leak-by.
- Mark up (or circle components) on the provided P&ID drawings for the valves required to be closed **and** document your list of valves on this Cue Sheet:

### SUCCESSFUL COMPLETION CRITERIA:

1. ALL critical steps completed
2. ALL sequential steps completed in order
3. ALL time-critical steps completed within the allotted time JPM completed within validated time. Completion may exceed the validated time if satisfactory progress is being made (and NRC concurrence is obtained).

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**Task Standard for Successful Completion:**

**1. Operator identifies the following valves on drawing 205342 as a minimum to be closed to isolate leak:**

**21SW472 (sheet 3)**

**21SW355 (sheet 3)**

**21SW50 (sheet 3)**

**21SW414 (sheet 5)**

**21SW78 (sheet 6)**

**22SW76 (sheet 6)**

**21SW76 (sheet 6)**

**21SW646 (sheet 6)**

**22SW646 (sheet 6)**

**Optional Valves:** These valves may be included but not necessary for leak isolation based on taking credit for check valve(s) preventing backflow:

- 21SW844 (sheet 3) check valves 21SW47 and 21SW79 upstream

- 21, 22, & 23SW45 (sheet 3) check valve 21SW79 downstream

**2. Operator correctly marks up the required valves on the provided P&ID drawings (205342) IAW with the enclosed answer key within this JPM.**

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NAME: \_\_\_\_\_  
DATE: \_\_\_\_\_

**SYSTEM:** Generic Administrative Topic – Equipment Control

**TASK:** Identify Components to Isolate a Service Water System Leak Using Station Drawings

* #	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. <b>Provide</b> copy of drawing 205342 Sheets 1 thru 7. 2. <b>Provide</b> two (2) highlighters with different colors			
	CUE:	Fill in the JPM Start Time when the student acknowledges the Initiating Cue.  <b>START TIME:</b> _____			
*		Mark up (or circle components) the provided P&ID drawings for the valves required to be closed.	<p><b>Using the P&amp;IDs provided, the operator highlights or marks (e.g., circles valve) the minimum valves to isolate (close) the leak.</b></p> <p><b>Evaluator’s Note:</b> Operator only needs to highlight the valves on the provided P&amp;ID.</p>		
*		List the components needed to be closed to isolate the leak:	<p><b>Operator identifies the following valves needed to be <u>closed</u>:</b></p> <p>21SW472 (sheet 3)                      21SW355 (sheet 3)                      21SW50 (sheet 3)                      21SW414 (sheet 5)                      21SW78 (sheet 6)                      22SW76 (sheet 6)                      21SW76 (sheet 6)                      22SW646 (sheet 6)                      21SW646 (sheet 6)</p>		

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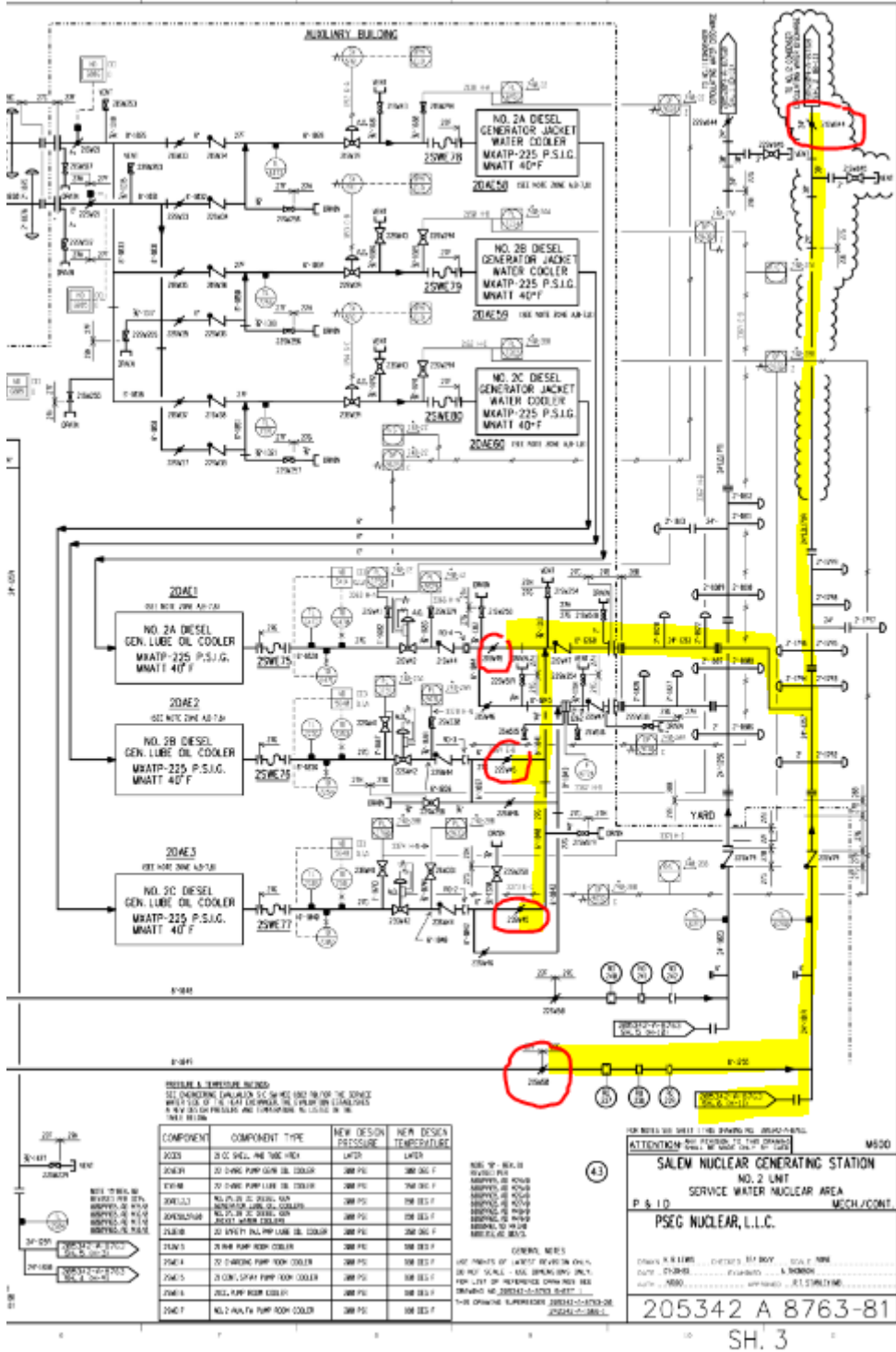
**NAME:** \_\_\_\_\_  
**DATE:** \_\_\_\_\_

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**TASK:** Identify Components to Isolate a Service Water System Leak Using Station Drawings

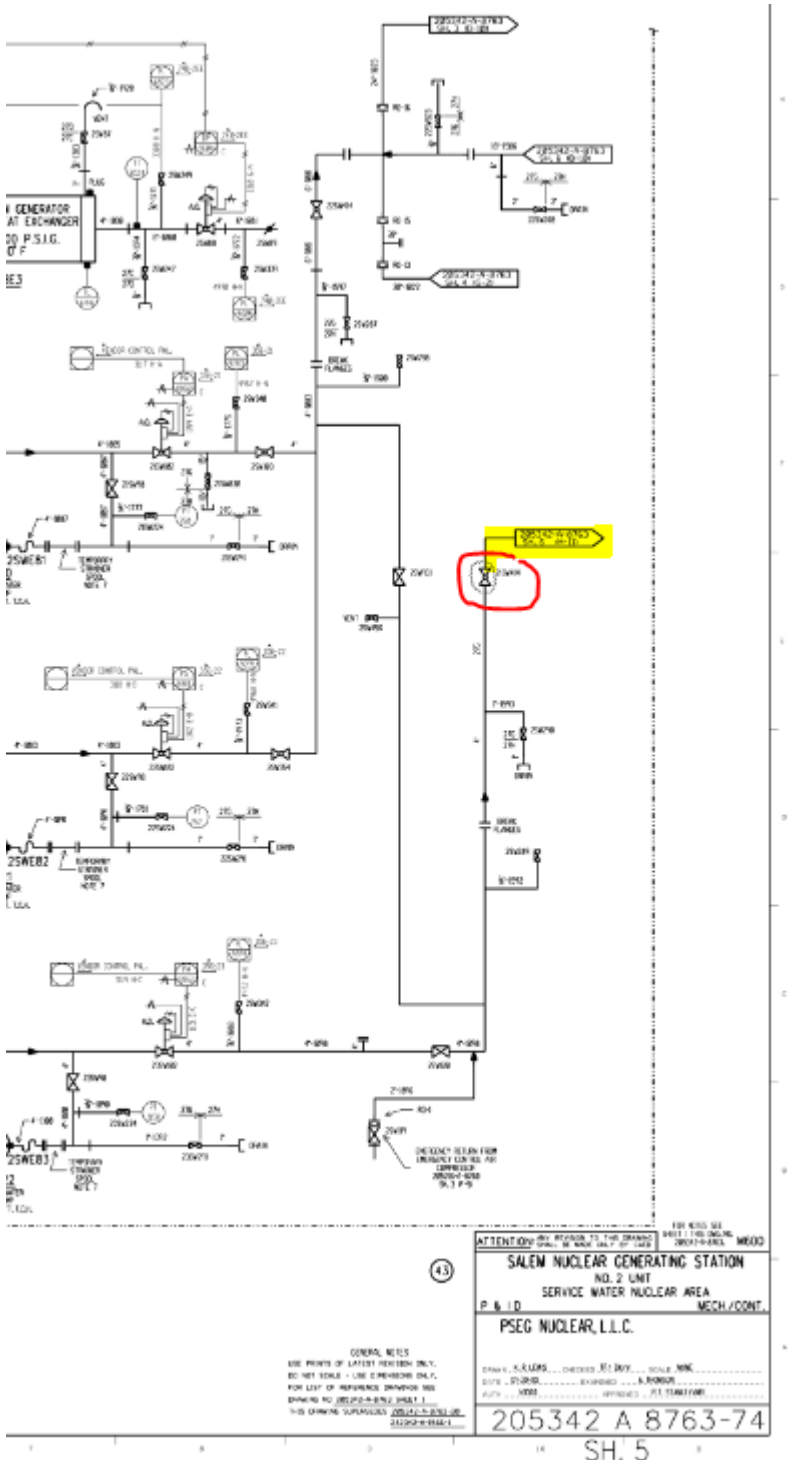
* #	STEP NO.	STEP (Shaded area denotes Critical Step) (* Critical Step) (# Sequential Critical Step)	STANDARD (Bolded area identifies Task Standard)	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	CUE:	<u>WHEN</u> operator informs you the task is complete, OR the JPM has been terminated for other reasons, <u>THEN</u> <b>RECORD</b> the STOP TIME.  <b>STOP TIME:</b> _____	<b>Terminate JPM when operator submits the Cue Sheet and P&amp;ID drawings.</b>		

# OPERATOR TRAINING PROGRAM JOB PERFORMANCE MEASURE



- Valves on 205342 Sheet 3:**
1. 21, 22, & 23SW45 (Note: optional)
  2. 21SW50
  3. 21SW844 (Note: Optional)

# OPERATOR TRAINING PROGRAM JOB PERFORMANCE MEASURE

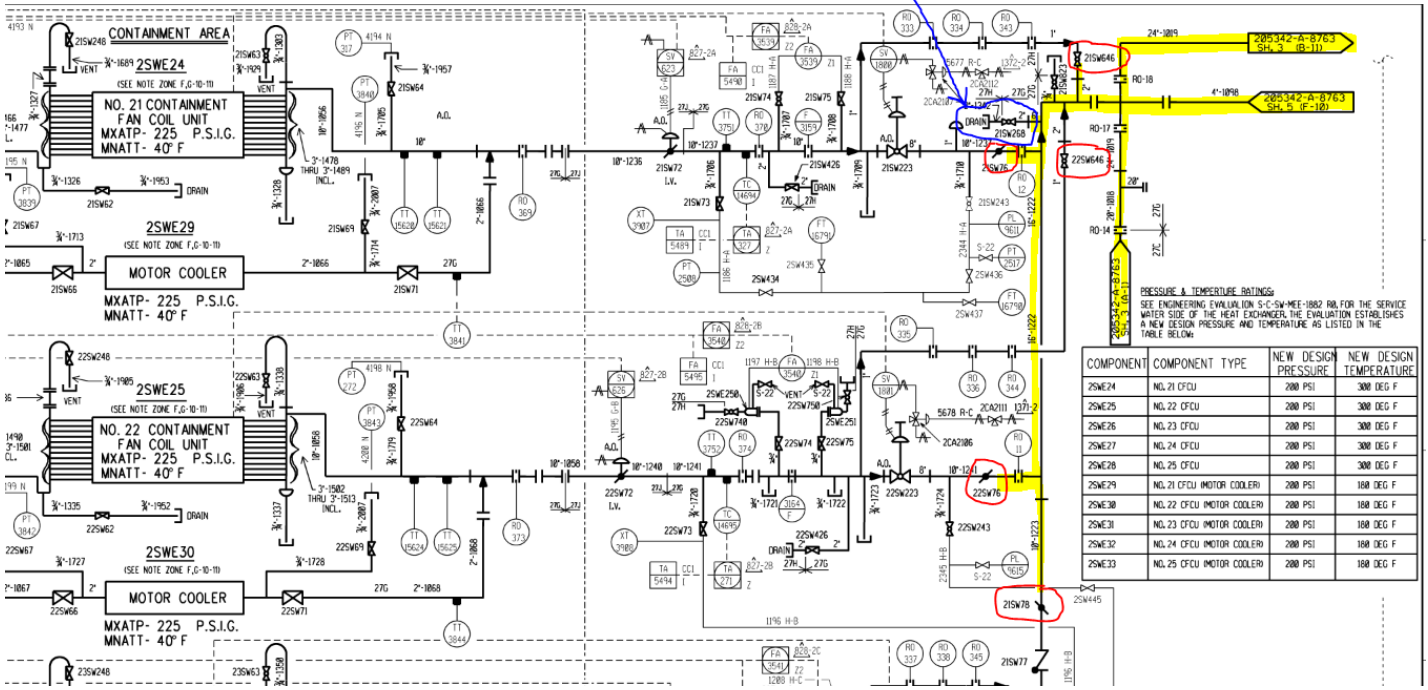


## Valve on 205342 Sheet 5:

1. 21SW414

# OPERATOR TRAINING PROGRAM JOB PERFORMANCE MEASURE

Leak



**Valves on 205342 Sheet 6:**

1. 21 & 22SW76
2. 21SW78
3. 21 & 22SW646

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**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

**JPM#: 19-01 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.

- RC 1. Task description and number, JPM description and number are identified.
- RC 2. Knowledge and Abilities (K/A) references are included.
- RC 3. Performance location specified. (in-plant, control room, or simulator)
- RC 4. Initial setup conditions are identified.
- RC 5. Initiating and terminating Cues are properly identified.
- RC 6. Task standards identified and verified by SME review.
- RC 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (\*).
- RC 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure: Procedure Rev. \_\_\_\_\_ Date \_\_\_\_\_  
  
(205342 sheet 1 Rev 84, sheet 2 Rev 80, sheet 3 Rev 81, sheet 4 Rev 64, sheet 5 Rev 74, sheet 6 Rev 72, sheet 7 Rev 7)
- RC 9. Pilot test the JPM:
  - a. verify Cues both verbal and visual are free of conflict, and
  - b. ensure performance time is accurate.
- N/A 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.
- N/A 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

SME/Instructor: R. Chan Date: 1-15-20

SME/Instructor: J. Klein Date: 1-16-20

SME/Instructor: Z. Weidner Date: 1-16-20

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List valves here (valve description not required):