

**NRC REGION III**  
**INITIAL LICENSE EXAM**  
**JOB PERFORMANCE MEASURE**

**JPM: RO SYSTEM g**

**TITLE: ALIGN BACKUP COOLING TO  
ENGINEERED SAFEGUARDS PUMPS**

CANDIDATE: \_\_\_\_\_

EXAMINER: \_\_\_\_\_

JOB PERFORMANCE MEASURE  
DATA PAGE

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Task: Align backup cooling to Engineered Safeguards Pumps

Alternate Path: NO

Facility JPM #: NEW

K/A: 008A4.01            Importance:    RO: 3.3            SRO: 3.1

K/A Statement: Ability to manually operate and/or monitor in the control room: CCW indications and controls

Task Standard: Service Water aligned to ESS pumps per SOP-16.

Preferred Evaluation Location: Simulator  In Plant

Preferred Evaluation Method: Perform  Simulate

References: SOP-16, Component Cooling Water System

Validation Time: 10 minutes    Time Critical: NO

Candidate: \_\_\_\_\_

Time Start: \_\_\_\_\_    Time Finish: \_\_\_\_\_

Performance Time: \_\_\_\_\_ minutes

Performance Rating: SAT \_\_\_\_\_    UNSAT \_\_\_\_\_

Comments:

Examiner: \_\_\_\_\_  
Signature

Date: \_\_\_\_\_

**EXAMINER COPY ONLY**

Tools/Equipment/Procedures Needed:

- SOP-16, Component Cooling Water System, Rev. 31

Also see **Simulator Operator Instructions** (last page of this document).

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

- CV-0913, ESS Pumps CCW Supply, had a severe packing leak requiring the valve to have a packing adjustment.
- CV-0913 must be closed to ensure the valve will move and that the packing is not leaking with the valve closed.
- Chemistry has been notified of the operation.

INITIATING CUES:

- The CRS directs you to align Service Water to the ESS Pumps per Section 7.6.1 of SOP-16, Component Cooling Water System.

Proc. Step	TASK ELEMENT 1	STANDARD	Grade
n/a	Locate SOP-16, Section 7.6.1, To Align Service Water to ESS Pumps	SOP-16, Section 7.6.1 located	S U
<b>Comment:</b> <i>Evaluator provides candidate with a Working Copy.</i>			

Proc. Step	TASK ELEMENT 2	STANDARD	Grade
7.6.1a	<b>ENSURE</b> in the CLOSED position, handswitches for the following valves: <ul style="list-style-type: none"> <li>▪ CV-0879, ESS Pumps SW Supply</li> <li>▪ CV-0880, ESS Pumps SW Supply</li> <li>▪ CV-0951, ESS Pumps SW Return</li> </ul>	Handswitches for the following valves verified closed: <ul style="list-style-type: none"> <li>▪ CV-0879, ESS Pumps SW Supply</li> <li>▪ CV-0880, ESS Pumps SW Supply</li> <li>▪ CV-0951, ESS Pumps SW Return</li> </ul>	S U
<b>Comment:</b>			

Proc. Step	TASK ELEMENT 3	STANDARD	Grade
7.6.1b	<b>OPEN</b> the Air Supply Valves to the following valves: <ul style="list-style-type: none"> <li>▪ CV-0879, ESS Pumps SW Supply</li> <li>▪ CV-0880, ESS Pumps SW Supply</li> <li>▪ CV-0951, ESS Pumps SW Return</li> </ul>	Auxiliary Operator contacted to open air supplies to the following valves: <ul style="list-style-type: none"> <li>▪ CV-0879, ESS Pumps SW Supply</li> <li>▪ CV-0880, ESS Pumps SW Supply</li> <li>▪ CV-0951, ESS Pumps SW Return</li> </ul>	S U
<b>Comment:</b> NOTE: Operator will have to contact AO to complete step, Simulator Operator takes Remotes to OPEN, and reports back to operator that Step 7.6.1b is complete.			

Proc. Step	TASK ELEMENT 4	STANDARD	Grade
7.6.1c	<b>CLOSE</b> the following valves: <ul style="list-style-type: none"> <li>▪ CV-0913, ESS Pumps CCW Supply</li> <li>▪ CV-0950, ESS Pump CCW Return</li> </ul>	CV-0913, ESS Pumps CCW Supply, AND CV-0950, ESS Pump CCW Return, closed.	<b>S U</b>
<b>Comment:</b> <b>CRITICAL STEP</b>			

Proc. Step	TASK ELEMENT 5	STANDARD	Grade
7.6.1d	<b>OPEN</b> CV-0879 <u>OR</u> CV-0880, ESS Pumps SW Supply	CV-0879 <u>OR</u> CV-0880 placed in the OPEN position.	<b>S U</b>
<b>Comment:</b> NOTE: Only one of these valves needs to be placed to open to satisfy the critical step. <b>CRITICAL STEP</b>			

Proc. Step	TASK ELEMENT 6	STANDARD	Grade
n/a	EK-1155, WEST ENG SAFEGUARDS PPS CLG WTR LO FLOW, and EK-1156, EAST ENG SAFEGUARDS PPS CLG WTR LO FLOW alarms annunciate (CV-0879 or CV-0880 opening)	ARP-7 checked for alarms EK-1155 and EK-1156 alarming. (Alarms due to opening of CV-0879 or CV-0880). No operator action needed.	<b>S U</b>
<b>Comment:</b> NOTE: EK-1155 and EK-1156 alarms annunciated due to no cooling water flow to ESS Pumps			

Proc. Step	TASK ELEMENT 7	STANDARD	Grade
7.6.1e	OPEN CV-0951, ESS Pumps SW Return	CV-0951 placed to open.	S U
<p><b>Comment:</b> NOTE: EK-1155 and EK-1156 alarms will clear with the opening of CV-0951 (SW established to ESS Pump Cooling).</p> <p><b>CRITICAL STEP</b></p>			

Proc. Step	TASK ELEMENT 8	STANDARD	Grade
7.6.1f	NOTIFY Chemistry Department to sample mixing basin for sodium nitrite.	Chemistry notified to sample.	S U
<p><b>Comment:</b> NOTE: <i>Evaluator: If operator starts to notify Chemistry, STATE: the CRS will notify them.</i></p>			

Proc. Step	TASK ELEMENT 9	STANDARD	Grade
n/a	Notify the CRS that SOP-16, Section 7.6.1 is complete.	CRS notified Section 7.6.1 of SOP-16 complete.	S U
<p><b>Comment:</b></p>			

**END OF TASK**

## CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

### INITIAL CONDITIONS:

- CV-0913, ESS Pumps CCW Supply, had a severe packing leak requiring the valve to have a packing adjustment.
- CV-0913 must be closed to ensure the valve will move and that the packing is not leaking with the valve closed.

### INITIATING CUES:

- The CRS directs you to align Service Water to the ESS Pumps per Section 7.6.1 of SOP-16, Component Cooling Water System.

## SIMULATOR OPERATOR INSTRUCTIONS

- Any at power IC
- To allow operation of CV-0879, CV-0880, and CV-0951, the following remotes will have to be entered:

CV-0879: Remote SW21, Isolate Air Supply to CV-0879; "OPEN", on page PIDSW02

CV-0880, Remote SW22, Isolate Air Supply to CV-0880; "OPEN", on page PIDSW04

CV-0951, RemoteCC07, Isolate Air Suppl to CV-0951; "OPEN", on page PIDCC02

- **At completion of JPM:**

Ensure CCW/SW to ESS Pumps is realigned per SOP-16, Section 7.6.2, To Restore Component Cooling Water to ESS Pumps

Return Remotes to the following:

CV-0879: Remote SW21, Isolate Air Supply to CV-0879; "CLOSE", on page PIDSW02

CV-0880, Remote SW22, Isolate Air Supply to CV-0880; "CLOSE", on page PIDSW04

CV-0951, RemoteCC07, Isolate Air Suppl to CV-0951; "CLOSE", on page PIDCC02