JOB PERFORMANCE MEASURE

STATION: SALEM

SYSTEM: Conduct of Operations - Administrative

TASK: Identify and Isolate Non-Essential Chilled Water Loads IAW S2.OP-SO.CH-0001, Attachment 2

TASK NUMBER: 0980020202

JPM NUMBER: 20-01 NRC SRO-A1

ALTERNATE PATH: [ ]

K/A NUMBER: G 2.1.7

IMPORTANCE FACTOR: RO: | SRO: 4.7

APPLICABILITY:

EO [ ] RO [ ] STA [ ] SRO [X]

EVALUATION SETTING/METHOD: Classroom

REFERENCES: S2.OP-SO.CH-0001 Rev. 36 (checked 1-10-22)
Salem 2 Tech Specs

TOOLS AND EQUIPMENT: Calculator

VALIDATED JPM COMPLETION TIME: 15 min

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

Developed By:	**R. Chan Instructor**	**Date: 1-10-22**
Validated By:	**M. Protesto SME or Instructor**	**Date: 1-10-22**
Approved By:	**M. Wadusky (signature on file) Training Department**	**Date: 2-10-22**
Approved By:	**W. Hargrave Operations Representative**	**Date: 1-10-22**

ACTUAL JPM COMPLETION TIME:

ACTUAL TIME CRITICAL COMPLETION TIME:

PERFORMED BY: _____

GRADE: [ ] **SAT** [ ] **UNSAT**

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: **DATE:**

REVISION HISTORY

JPM NUMBER: 20-01 NRCSRO-A1

Rev #	Date	Description	Validation Required
00	10-3-17	Added revision history and simulator setup pages. Editorial comments from IP 71111.11 FASA.	No
01	1-10-22	Used for 20-01 NRC exam. Incorporated NRC Prep week comments.	Yes

JOB PERFORMANCE MEASURE

SIMULATOR SETUP INSTRUCTIONS

SYSTEM: Conduct of Operations - Administrative

TASK: Identify and Isolate Non-Essential Chilled Water Loads IAW S2.OP-SO.CH-0001

TASK NUMBER: 0980020202

SIMULATOR IC: N/A

MALFUNCTIONS / REMOTES: N/A

OVERRIDES: N/A

SPECIAL INSTRUCTIONS: None

JOB PERFORMANCE MEASURE

SYSTEM: Conduct of Operations - Administrative

TASK: Identify and Isolate Non-Essential Chilled Water Loads IAW S2.OP-SO.CH-0001

TASK NUMBER: 0980020202

INITIAL CONDITIONS:

- It is July 15th time 1800 and you have just assumed the watch as the Unit 2 CRS. It was turned over that both 21 and 22 Chillers tripped at 1600 and you are currently in T/S 3.7.10 action 'b', entered at 1600.
- To comply with the T/S action, the crew is implementing S2.OP-SO.CH-0001, Chilled Water System Operation, Section 4.6, Isolation of Non-Essential Heat Loads.
- During preparations to align #2 ECAC cooling to Service Water IAW S2.OP-SO.CA-0001, Control Air System Operation, it was reported that the spool pieces required to align to service water cannot be located.
- Unit 2 CREACS has been removed from service IAW step 4.6.2 of S2.OP-SO.CH-0001.
- CW Inlet Water Temperature Readings from SC.OP-DL.ZZ-0008(Q), Circulating / Service Water Log are:

  2TL3756 = 83.4°F
  2TL3757 = 83.6°F

INITIATING CUE:

- You are the Unit 2 CRS.
- The Shift Manager directs you to NOT isolate the #2 ECAC and to re-perform the Non-Essential heat load determination IAW Attachment 2.

  DETERMINE the total Non-Essential heat load and **SELECT** the required components for isolation IAW S2.OP.SO-CH-0001, Chilled Water System Operation, Attachment 2 to comply with Tech Specs.

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 Total Heat Load Isolation value required is 902.8 kBTU / HR.**
2. **Selects the required components on Table B for isolation and ensures that the total value (906.6 kBTU / HR) is greater than 902.8 kBTU / HR.**

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Task: Identify and Isolate Non-Essential Heat Loads IAW S2.OP-SO.CH-0001 **Date:**

* #	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 the following: ▪ Unit 2 Tech Specs ▪ S2.OP-SO.CH-0001, Chilled Water System Operation.			
	CUE:	**PROVIDE** the operator the initiating cue AND **ENTER** START TIME AFTER operator repeats back the Initiating Cue. **START TIME:_____**			

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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)
	Attach 2 1.A	**RECORD** the following data for use in Table A: Inlet Water Temperature from SC.OP-DL.ZZ-0008(Q), Circulating / Service Water Log: 2TL3756=____ °F 2TL3757=_____°F From the above indicated 2TL3756/2TL3757 temperatures, **RECORD** the highest temperature AND **ADD** 1.5°F to account for instrument uncertainty. Utilize this temperature when referring to Table A _____°F + 1.5°F = _____°F (highest temp)	Enters temperatures from cue sheet onto Attachment 2 form. [83.6 F + 1.5 F = **85.1 F**]		
	1.B	Number of inoperable Chiller Units:___	Lists 2 Chillers Inoperable.		

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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.C	**RECORD** the TOTAL HEAT LOAD ISOLATION from Table A: _____kBTU / HR	**From Table A, Determines 902.8 kBTU / HR. (Based on Inlet water temp of 85.1 F, 2 chillers Inoperable and in Maintenance Mode with Unit 2 EACS Out of Service)**		
	1.D	**IDENTIFY** the components to be isolated in Table B as follows:			
*	1.E	**RECORD** the value from the HEAT LOAD column into the Isolation column for the components selected for isolation.	**Selects the value of heat load by annotating the values in Table B to ensure value greater than value recorded in step 1.C.** **21 PACU = 145.7** **22 PACU = 145.7** **23 PACU = 145.7** **Secondary Lab = 192.1** **Primary Lab = 165.9** **Counting Room = 73.0** **PASS = 38.5**		
*	1.F	**RECORD** "N/A" for the components selected to remain available.	**Selects N/A for Emergency Control Air Compressor (ECAC)**		

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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.G	**ADD** the values recorded in the Isolation column AND **RECORD** the Total Isolation value in Table B.	Determines that the Total Heat Load Isolation value per Table B is **906.6 kBTU / HR**.		
*	1.H	**ENSURE** that the Total Isolation value recorded in Table B is ≥ the Total Heat Load Isolation recorded in Step C of this attachment.	**Determines the Total Heat load Isolation value recorded in Table B (906.6 kBTU / HR) is greater than or equal to the Total Heat Load Isolation in Step C (902.8 kBTU / HR).**		
	1.I	**ISOLATE** the selected components IAW Section 4.6 of this procedure.	**CUE:** The NCO will isolate the selected components IAW Section 4.6.		
	CUE:	**JPM is Complete** THEN **RECORD** the STOP TIME. **STOP TIME:_____**	**Terminate JPM when operator determines the loads that need to be isolated.**		

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM #: 20-01 NRCSRO-A1

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. __36___ Date ___1-10-22_____

_____RC__ 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.

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

SME/Instructor:	R. Chan	Date:	1-10-22
SME/Instructor:	M. Protesto	Date:	1-10-22
SME/Instructor:		Date:	

JOB PERFORMANCE MEASURE

Applicant Name: _____

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1. **DETERMINE** the total Non-Essential heat load value and **SELECT** the required components for isolation IAW S2.OP.SO-CH-0001, Chilled Water System Operation, Attachment 2, to comply with Tech Specs.