



JOB PERFORMANCE MEASURE (JPM)

**SITE:** PRAIRIE ISLAND

**JPM TITLE:** MALFUNCTION OF AUTOMATIC MAKEUP DURING BORATION

**JPM NUMBER:** VC-29SF **REV.** 3

**RELATED PRA INFORMATION:** NONE

**TASK NUMBERS / TASK TITLE(S):** CRO 000 023 05 01 00 / INADVERTENT REACTIVITY CHANGES

**K/A NUMBERS:** 004 A4.12 **Rating SRO/RO:** 3.8/3.3

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

**EVALUATION LOCATION:** In-Plant:  Control Room:   
 Simulator:  Other:   
 Lab:

Time for Completion: 7 Minutes Time Critical: NO

Alternate Path: YES

**TASK APPLICABILITY:** SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	Fredrick Collins Developer		7-17-2020 Date
<b>Validated by:</b>	Jesse Maunu Validator (See JPM Validation Checklist, Attachment 1)		7/13/20 Date
<b>Approved by:</b>			7/27/2020 Date

## VC-29SF, MALFUNCTION OF AUTOMATIC MAKEUP DURING BORATION, Rev. 3

## JPM BRIEFING/TURNOVER

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Unit 1 is at 100% Power.

**INITIATING CUES:**

- The Unit 1 Shift Supervisor directs you to perform a 10 gallon BORATION to the RCS using 1C12.5, Unit 1 Boron Concentration Control, section 5.10.

Retention: Life of Plant  
Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.

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**JPM PERFORMANCE INFORMATION**

**Required Materials:** NONE

**General References:** 1C12.5, Unit 1 Boron Concentration Control  
 FP-OP-COO-01, Conduct of Operations  
 C12.5 AOP 2, Malfunction of Automatic Make-up

**Task Standards:** Examinee takes makeup mode selector switch to borate and secures the boration.

**Start Time:** \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step SHALL result in failure of this JPM, per FP-T-SAT-73, “Licensed Operator Requalification Program Examinations”.

<b>Performance Step:</b>	1C12.5 Section 5.10
<b>Critical</b> <u>N</u>	
	1. <u>IF</u> not yet reviewed this shift, <u>THEN</u> perform a review of the precautions in section 5.7.
<b>Standard:</b>	Examinee reviews precautions in section 5.7.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b>	1C12.5 Section 5.10
<b>Critical</b> <u>N</u>	
	2. Verify the Boric Acid Integrator is reset.
<b>Standard:</b>	Examinee determines the Boric Acid Integrator is reset.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

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<b>Performance Step:</b>	<b>1C12.5 Section 5.10</b>
<b>Critical <u>N</u></b>	<b>3. Set 1YIC-110, BA TO BLENDER BATCH INTEGRATOR, to the quantity desired.</b>
<b>Standard:</b>	<b>Examinee sets 1YIC-110 to 10.0</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>1C12.5 Section 5.10</b>
<b>Critical <u>Y</u></b>	<b>4. Place CS-46300, MAKE-UP MODE SELECTOR, to "BORATE"</b>
<b>Standard:</b>	<b>Examinee places CS-46300 to borate.</b>
<b>Evaluator Note:</b>	<b>When the make-up mode selector switch is taken to borate, a boration will begin immediately.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

**ALTERNATE PATH STARTS HERE**

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<b>Performance Step:</b>	<b>FP-OP-COO-01, 5.3.4 Conservative Bias, step 7:</b>
<b>Critical <u>Y</u></b>	<p>Operators understand plant conditions and know the appropriate action to take when plant or component control cannot be maintained, including stopping the evolution. Operators identify unexpected plant responses and take manual control when necessary to control or stabilize the plant.</p> <p>Stop makeup flow using one or more of the following methods:</p> <ul style="list-style-type: none"> <li>A. Place CS-46300, MAKE-UP MODE SELECTOR TO OFF.</li> <li>B. 1HC110, BA TO BLENDER FLOW CONT CV-31199, to MANUAL and CLOSE</li> <li>C. STOP the reactor makeup pumps and boric acid transfer pumps             <ul style="list-style-type: none"> <li>o CS-46161, 11 BORIC ACID TRANSFER PUMP</li> </ul> </li> <li>D. CLOSE CV-31200, BA BLENDER TO VC TNK OUTLT</li> <li>E. CLOSE CV-31199, BA INLT TO BLENDER</li> </ul>
<b>Standard:</b>	Examinee secures the boration.
<b>Evaluator Note</b>	There are multiple ways to stop the boration. A list of the effective methods from C12.5 AOP2, in addition to appropriate valve isolations, are listed above.
<b>Evaluator Cue:</b>	If examinee informs the evaluator about the automatic boration malfunction, as examinee as the Shift Supervisor what action they recommend taking to remedy the situation.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

**Terminating Cues:** When the examinee takes makeup mode selector switch to borate and secures the boration, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

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**Simulator Setup:**

1. If running this JPM in conjunction with **VC-104S** and/or **RC-26S**, & **ZC-1SF**, then refer to ZC-1SF for set up instructions. If not, then continue with next step.
2. Reset the simulator to designated IC created for this JPM.
3. Place the simulator in RUN and go to step 5.
4. If an IC is NOT created for this scenario, then create as follows:
  - a. Reset to **IC-10**.
  - b. Place the simulator in RUN.
5. If available, run schedule file **VC-29SF.sch** as follows:
  - a. Select open file in the Schedule application.
  - b. Locate schedule file.
  - c. Open schedule file by double clicking it.
  - d. Run the schedule file by pressing the “Stopped” button on the toolbar.
  - e. Verify the schedule file is running.
6. If schedule file is NOT available, then insert malfunctions, remotes, and overrides, as specified by the Simulator Input Summary.
7. If available, open event file **VC-29SF.evt** as follows:
  - a. Select open file in the EVENT application.
  - b. Locate event file.
  - c. Open by double clicking file.
8. If event file is NOT available, then enter event codes as specified by the Simulator Event Summary below.
9. Place simulator in FREEZE.
10. If desired, save to an available IC.
11. Place simulator in RUN.
12. Place a yellow CAUTION TAG on CS-46294, 13 CHG PUMP.
13. Clear recorder memory after each reset.
14. Verify Boric Acid and RMU Counters are RESET after each reset.
15. Verify Director or Schedule File matches the input summary below.

**SIMULATOR INPUT SUMMARY**

Insert	Pause	@Time	Event	Action	Description
<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-46457NAST to False on event 1	NRML AF STRT
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-464575P to False on event 1	STOP
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-464575T to True on event 1	START
<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-41111RS to False on event 1	RESET
<input type="checkbox"/>	<input type="checkbox"/>				

**SIMULATOR EVENT SUMMARY**

Event ID	Event CODE	Event DESCRIPTION
1	ZVCR457(1)==1	BORIC ACID MU CONTROL TO START

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**ATTACHMENT 1**  
JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.





**ATTACHMENT 3**  
**TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 is at 100% Power.

**INITIATING CUES:**

- The Unit 1 Shift Supervisor directs you to perform a 10 gallon BORATION to the RCS using 1C12.5, Unit 1 Boron Concentration Control, section 5.10.



JOB PERFORMANCE MEASURE (JPM)

SITE: PRAIRIE ISLAND

JPM TITLE: PERIODIC ROTATION OF CHARGING PUMPS

JPM NUMBER: RC-26S REV. 0

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 011 ATI 00 00 002 TRANSFER CHARGING PUMPS TO/FROM MANUAL AND AUTOMATIC

K/A NUMBERS: 004 A4.08 Rating SRO/RO: 3.8/3.4

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

EVALUATION LOCATION: In-Plant:  Control Room:   
Simulator:  Other:   
Lab:

Time for Completion: 8 Minutes Time Critical: NO

Alternate Path: NO

TASK APPLICABILITY: SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

Developed by:		Developer		2/25/20	Date
Validated by:		Validator	Hasner	2/25/20	Date
(See JPM Validation Checklist, Attachment 1)					
Approved by:		Training Supervisor	SARRAS	3/3/2020	Date

**RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0****JPM BRIEFING/TURNOVER**

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- You are the Unit 1 Reactor Operator.

**INITIATING CUES (IF APPLICABLE):**

- The Shift Supervisor directs you place 11 Charging Pump in MANUAL and 12 Charging Pump in AUTOMATIC per section 6.6 of 1C12.1, Letdown, Charging, and Seal Water Injection – Unit 1.

Retention: Life of Plant

Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.

**RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0**  
**JPM PERFORMANCE INFORMATION**

**Required Materials:**      • NONE

**General References:**      • 1C12.1 Letdown, Charging, and Seal Water Injection – Unit

**Task Standards:**              • Examinee places 11 Charging Pump in MANUAL and 12 Charging Pump in AUTOMATIC.

**Start Time:** \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step SHALL result in failure of this JPM, per FP-T-SAT-73, “Licensed Operator Requalification Program Examinations”.

<b>Performance Step:</b>	1C12.1, step 6.6.1:
<b>Critical <u>Y</u></b>	IF it is desired to swap auto speed control between two running Charging Pumps, THEN perform the following: A. Transfer the speed control for the charging pump operating in AUTOMATIC to MANUAL per C7, Reactor Control System. • 1HC428A, 11 CHG PUMP SPEED CONT
<b>Standard:</b>	Examinee places 11 Charging Pump speed control to MANUAL.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0**

<b>Performance Step:</b> <b>Critical <u>N</u></b>	<b>C7 6.3.1.A:</b> <b>Switching from Automatic to Manual Control:</b>  Place the transfer switch in the AUTO-BALANCE position.
<b>Standard:</b>	Examinee places 1HC428A, 11 Charging Pump speed control, transfer switch in MANUAL-BALANCE.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical <u>N</u></b>	<b>C7 6.3.1.B:</b> <b>Switching from Automatic to Manual Control:</b>  Adjust the MANUAL control knob for zero deviation on the deviation indicator.
<b>Standard:</b>	Examinee adjusts the 1HC428A MANUAL control knob for zero deviation on the deviation indicator.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical <u>N</u></b>	<b>C7 6.3.1.C:</b> <b>Switching from Automatic to Manual Control:</b>  Place the transfer switch in the MANUAL position.
<b>Standard:</b>	Examinee places 1HC428A, 11 Charging Pump speed control, transfer switch to MANUAL.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0**

<b>Performance Step:</b>	<b>1C12.1, step 6.6.1:</b>
<b>Critical <u>Y</u></b>	<b>IF it is desired to swap auto speed control between two running Charging Pumps, THEN perform the following:</b>
	<b>A. Raise the speed of the pump to be placed to AUTOMATIC while reducing the speed of the second pump.</b>
	<b>• 1HC428B, 12 CHG PUMP SPEED CONT</b>
<b>Standard:</b>	<b>Examinee raises speed of 12 Charging Pump while reducing speed of 11 Charging Pump.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>1C12.1, step 6.6.1:</b>
<b>Critical <u>Y</u></b>	<b>IF it is desired to swap auto speed control between two running Charging Pumps, THEN perform the following:</b>
	<b>B. WHEN charging pump flow and pressurizer level are stable, THEN transfer the desired pump to AUTOMATIC per C7, Reactor Control System.</b>
	<b>• 1HC428B, 12 CHG PUMP SPEED CONT</b>
<b>Standard:</b>	<b>Examinee places 12 Charging Pump speed control to AUTOMATIC.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C7 6.3.2.A:</b>
<b>Critical <u>N</u></b>	<b>Switching from Manual to Automatic Control:</b>
	<b>Place the transfer switch in the MANUAL-BALANCE position.</b>
<b>Standard:</b>	<b>Examinee places 1HC428A, 11 Charging Pump speed control, transfer switch to MANUAL-BALANCE.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0**

<b>Performance Step:</b>	<b>C7 6.3.2.B:</b>
<b>Critical <u>N</u></b>	<b>Switching from Manual to Automatic Control:</b>
	<b>Adjust the BIAS dial for zero deviation on the deviation indicator.</b>
<b>Standard:</b>	<b>Examinee adjusts the 1HC428A BIAS dial for zero deviation on the deviation indicator.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C7 6.3.2.C:</b>
<b>Critical <u>N</u></b>	<b>Switching from Manual to Automatic Control:</b>
	<b>Place the transfer switch in the AUTO position.</b>
<b>Standard:</b>	<b>Examinee places 1HC428A, 11 Charging Pump speed control, transfer switch to AUTO.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C7 6.3.2.D:</b>
<b>Critical <u>N</u></b>	<b>Switching from Manual to Automatic Control:</b>
	<b>Over the next several minutes, adjust the BIAS dial to 0.</b>
<b>Standard:</b>	<b>Examinee adjusts 1HC428A, 11 Charging Pump speed control, BIAS dial as necessary.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**Terminating Cues:** When examinee places 11 Charging Pump in MANUAL and 12 Charging Pump in AUTOMATIC, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

## RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0

### **Simulator Setup:**

1. If an IC is already created for this JPM, then go to step 3.
2. If an IC is NOT created for this JPM, then create one as follows:
  - a. Reset to **IC-10**.
  - b. Verify 11 Charging Pump is running in AUTOMATIC and 12 Charging Pump is running in MANUAL at minimum speed.
  - c. Place simulator in RUN.
3. If running this JPM in conjunction with ZC-1SF and/or VC-29SF, then place a yellow CAUTION TAG on CS-46294, 13 CHG PUMP.
4. Clear recorder memory after each reset.



**RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0**

**ATTACHMENT 1  
JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

RC-26S, PERIODIC ROTATION OF CHARGING PUMPS, REV. 0

ATTACHMENT 2

JPM Number: RC-26S

JPM Title: PERIODIC ROTATION OF CHARGING PUMPS

Examinee & ID: \_\_\_\_\_ Evaluator: \_\_\_\_\_

Job Title: \_\_\_\_\_ Date: \_\_\_\_\_

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).


EVALUATOR'S SIGNATURE: \_\_\_\_\_

**NOTE:** Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

**ATTACHMENT 3**  
**TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- You are the Unit 1 Reactor Operator.

**INITIATING CUES (IF APPLICABLE):**

- The Shift Supervisor directs you place 11 Charging Pump in MANUAL and 12 Charging Pump in AUTOMATIC per section 6.6 of 1C12.1, Letdown, Charging, and Seal Water Injection – Unit 1.



JOB PERFORMANCE MEASURE (JPM)

SITE: PRAIRIE ISLAND  
JPM TITLE: ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV LEAKAGE

JPM NUMBER: RC-25SF REV. 0  
RELATED PRA INFORMATION: IMPORTANT COMPONENT - 1 PRZR PORV B CV

TASK NUMBERS / TASK TITLE(S): CRO 010 001 01 01 000 CONTROL PRZR PRESSURE USING HEATERS/SPRAY MANUALLY  
CRO 010 007 01 01 000 / MONITOR THE PRZR PRESSURE RELIEF SYSTEM

K/A NUMBERS: 007 A4.10 Rating SRO/RO: 3.6/3.8

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

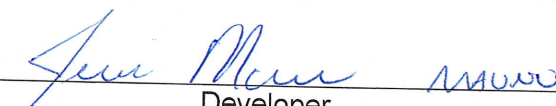

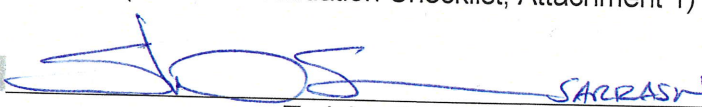
EVALUATION LOCATION: In-Plant:  Control Room:   
Simulator:  Other:   
Lab:

Time for Completion: 6 Minutes Time Critical: NO

Alternate Path: YES

TASK APPLICABILITY: SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

Developed by:		2/25/20
	Developer	Date
Validated by:		2/25/20
	Validator	Date
(See JPM Validation Checklist, Attachment 1)		
Approved by:		3/3/2020
	Training Supervisor	Date

**RC-25SF, ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV  
LEAKAGE, REV. 0**

**JPM BRIEFING/TURNOVER**

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- You are the Unit 1 Reactor Operator.
- Crew is making preparations for Flexible Power Operations next shift.

**INITIATING CUES (IF APPLICABLE):**

- The Shift Supervisor directs you to energize PRZR Back-up Heaters per step 5.5.1 of 1C4, Reactor Coolant System.

**RC-25SF, ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV  
LEAKAGE, REV. 0**

**JPM PERFORMANCE INFORMATION**

**Required Materials:**      • NONE

**General References:**      • 1C4, Reactor Coolant System  
                                          • C47012-0406, PRZR RELIEF TANK HI TEMP/LVL/PRESS OR LO LVL  
                                          • C47012-0506, PRZR POWER RELIEF LINE HI TEMP

**Task Standards:**              • Examinee energizes at least one group of PRZR Back-up Heaters and isolates CV-31231 leakage by closing MV-32195.

**Start Time:** \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step SHALL result in failure of this JPM, per FP-T-SAT-73, “Licensed Operator Requalification Program Examinations”.

<b>Performance Step:</b>	1C4, step 5.5.1:
<b>Critical</b> <u>Y</u>	IF desired, THEN turn on pressurizer backup heaters as follows: <ul style="list-style-type: none"> <li>• Place CS-46241, 1 SFGD PRZR BACK-UP HTRS GRP A ON/AUTO/OFF CS, to ON.</li> </ul>
<b>Standard:</b>	Examinee places CS-46241 to ON.
<b>Evaluator Note:</b>	PRZR Back-up heaters can be energized in any order. Event Trigger 1 will enter when Group A heaters are energized. Depending on examinee pace and timing all back-up heaters may or may not be energized prior to relief line high temp alarm coming in.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**RC-25SF, ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV  
LEAKAGE, REV. 0**

<b>Performance Step:</b>	<b>1C4, step 5.5.1:</b>
<b>Critical <u>N</u></b>	<b>IF desired, THEN turn on pressurizer backup heaters as follows:</b> <ul style="list-style-type: none"> <li>• <b>Place CS-46242, 1 SFGD PRZR BACK-UP HTRS GRP B ON/AUTO/OFF CS, to ON.</b></li> </ul>
<b>Standard:</b>	<b>Examinee places CS-46242 to ON.</b>
<b>Evaluator Note:</b>	<b>Examinee may or may not complete this step.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>1C4, step 5.5.1:</b>
<b>Critical <u>N</u></b>	<b>IF desired, THEN turn on pressurizer backup heaters as follows:</b> <ul style="list-style-type: none"> <li>• <b>Place CS-46244, 1 PRZR BACK-UP HTRS GRP D ON/AUTO/OFF CS, to ON.</b></li> </ul>
<b>Standard:</b>	<b>Examinee places CS-46244 to ON.</b>
<b>Evaluator Note:</b>	<b>Examinee may or may not complete this step.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>1C4, step 5.5.1:</b>
<b>Critical <u>N</u></b>	<b>IF desired, THEN turn on pressurizer backup heaters as follows:</b> <ul style="list-style-type: none"> <li>• <b>Place CS-46245, 1 PRZR BACK-UP HTRS GRP E ON/AUTO/OFF CS, to ON.</b></li> </ul>
<b>Standard:</b>	<b>Examinee places CS-46245 to ON.</b>
<b>Evaluator Note:</b>	<b>Examinee may or may not complete this step.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**RC-25SF, ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV  
LEAKAGE, REV. 0**

**ALTERNATE PATH STARTS HERE**

<b>Performance Step:</b>	<b>C47012-0506, step 1:</b>
<b>Critical <u>N</u></b>	<b>Check pressurizer relief line temperature.</b>
<b>Standard:</b>	<b>Examinee determines pressurizer relief line temperature is abnormally high.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C47012-0506, step 2.A:</b>
<b>Critical <u>N</u></b>	<b>Check pressurizer pressure.</b> <b>A. If pressure high, then control pressure in manual utilizing heaters and sprays.</b>
<b>Standard:</b>	<b>Examinee determines pressurizer pressure is normal (not high).</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C47012-0506, step 2.B:</b>
<b>Critical <u>N</u></b>	<b>Check pressurizer pressure.</b> <b>B. Verify power operated relief reseated by noting relief line temperature decrease, valve position indication, and relief valve flow monitor lights.</b>
<b>Standard:</b>	<b>Examinee determines PRZR PORV continues to leak.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____



**RC-25SF, ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV LEAKAGE, REV. 0**

<b>Performance Step:</b>	<b>C47012-0506, step 2.C.1.a:</b>
<b>Critical <u>Y</u></b>	<b>Check pressurizer pressure.</b> <b>C. If pressure normal, then isolate power operated reliefs one at a time to determine which valve is leaking:</b> <b>1) Isolate CV-31231 by performing the following:</b> <b>a) Close MV-32195 PRZR RELIEF ISOL (1-8000A) using CS-46263.</b>
<b>Standard:</b>	<b>Examinee isolates CV-31231 by closing MV-32195 using CS-46263.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C47012-0506, step 2.C.1.b:</b>
<b>Critical <u>N</u></b>	<b>Check pressurizer pressure.</b> <b>C. If pressure normal, then isolate power operated reliefs one at a time to determine which valve is leaking:</b> <b>1) Isolate CV-31231 by performing the following:</b> <b>b) Observe relief line temperature.</b>
<b>Standard:</b>	<b>Examinee determines relief line temperature is lowering.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**Terminating Cues:** When examinee has energized at least 1 group of PRZR Back-up Heaters and has isolated CV-31231 by closing MV-32195, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

**Historical Record:**

**RC-25SF, ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV LEAKAGE, REV. 0**

**Simulator Setup:**

1. Perform the following to set up the simulator:
  - a. Reset to **IC-10**.
  - b. Place simulator in RUN.
  - c. If available, run schedule file **RC-25SF.sch** as follows:
    - 1) Select open file in the Schedule application.
    - 2) Locate schedule file.
    - 3) Open schedule file by double clicking it.
    - 4) Run the schedule file by pressing the "Stopped" button on the toolbar.
    - 5) Verify the schedule file is running.
  - d. If schedule file is NOT available, then insert malfunctions, remotes, and overrides, as specified by the Simulator Input Summary below.
  - e. If available, run event file **RC-25SF.evt** as follows:
    - 1) Select open file in the EVENT application.
    - 2) Locate event file.
    - 3) Open by double clicking file.
  - f. If event file is NOT available, then enter event codes as specified by the Simulator Event Summary below.
2. Clear recorder memory after each reset.

**SIMULATOR INPUT SUMMARY**

@Time	Event	Action	Description
	1	Insert malfunction RC22B to 5.00000	PRESSURIZER POWER OPERATED RELIEF VALVE PCV-431C LEAKAGE

**SIMULATOR EVENT SUMMARY**

Event ID	Event CODE	Event DESCRIPTION
1	HWZRXSHTA(1)==1	GROUP A PRZR HEATERS ENERGIZED

**RC-25SF, ENERGIZE PRZR BACK-UP HEATERS AND RESPOND TO PRZR PORV LEAKAGE,  
REV. 0**

**ATTACHMENT 1  
JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.




**ATTACHMENT 3**  
**TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- You are the Unit 1 Reactor Operator.
- Crew is making preparations for Flexible Power Operations next shift.

**INITIATING CUES (IF APPLICABLE):**

- The Shift Supervisor directs you to energize PRZR Back-up Heaters per step 5.5.1 of 1C4, Reactor Coolant System.

	<b>JOB PERFORMANCE MEASURE (JPM)</b>
-----------------------------------------------------------------------------------	--------------------------------------

**SITE:** PRAIRIE ISLAND

**JPM TITLE:** LOSS OF COOLING WATER HEADER PRESSURE

**JPM NUMBER:** CL-11SF      **REV.** 21 <sup>1/4</sup> 9/14/18

**RELATED PRA INFORMATION:** LOCL (<1%)  
 IMPORTANT COMPONENT – 12 DD CLG WTR PMP  
 IMPORTANT COMPONENT – 22 DD CLG WTR PMP

**TASK NUMBERS / TASK TITLE(S):** CRO 076 ATI 00 00 002 / SHUTDOWN A COOLING WATER PUMP  
 CRO 076 ATI 00 00 013 / LOSS OF PUMPING CAPACITY OR HEADER WITHOUT SI

**K/A NUMBERS:** 075 A4.01 (3.2\*/3.2\*)

**APPLICABLE METHOD OF TESTING:**

Discussion:       Simulate/walkthrough:       Perform:




**EVALUATION LOCATION:** In-Plant:       Control Room:   
 Simulator:       Other:   
 Lab:

Time for Completion: 8 Minutes      Time Critical: NO

Alternate Path: YES

**TASK APPLICABILITY:** SRO:       RO:       NLO:

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	COLLINS 	6-9-18 Date
<b>Validated by:</b>	HANWIG 	7/23/18 Date
(See JPM Validation Checklist, Attachment 1)		
<b>Approved by:</b>	 SCHOEN	8/1/18 Date
	Training Supervisor	

**CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1****JPM BRIEFING/TURNOVER**

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- 11 and 21 Motor Driven Cooling Water Pumps are RUNNING.
- 12 and 22 Diesel Driven Cooling Water Pumps are in STANDBY.
- 121 Motor Driven Cooling Water Pump is RUNNING.
- 121 Motor Driven Cooling Water Pump is NOT aligned as a safeguards pump.
- Steps 5.10.1 through 5.10.3 of C35, COOLING WATER, are complete.
- An out-plant operator is stationed near the 121 Motor Driven Cooling Water Pump with a radio.

**INITIATING CUES:**

- The SS directs you to secure 121 Motor Driven Cooling Water Pump by performing steps 5.10.4 through 5.10.6 of C35, COOLING WATER.

Retention: Life of Plant

Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.

CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1

JPM PERFORMANCE INFORMATION

**Required Materials:** NONE

**General References:** C35, COOLING WATER  
C35 AOP2, LOSS OF PUMPING CAPACITY OR SUPPLY HEADER WITHOUT SI  
C47020-0106, 11 COOLING WATER PUMP LOCKED OUT

**Task Standards:** Examinee secures 121 Motor Driven Cooling Water Pump and restores cooling water header pressure above 85 psig when 11 Motor Driven Cooling Water Pump locks out.

**Start Time:** \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM, per FP-T-SAT-73, Licensed Operator Requalification Program Examinations.

<b>Performance Step:</b>	C35, COOLING WATER, Step 5.10.4
<b>Critical <u>N</u></b>	While monitoring 4101202 or 4150402 [4101302 or 4150502], LOOP A [B] CLG WTR DISCH HDR PRESS, CLOSE CL-39-3, 121 CLG WTR PUMP DISCH.
<b>Standard:</b>	Examinee monitors Cooling Water Header Pressure while directing an out-plant operator to close CL-39-3.
<b>EVALUATOR CUE:</b>	When examinee directs an out-plant operator to close CL-39-3, enter TRIGGER 1, wait 1 minute, and then inform examinee CL-39-3 is closed.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____



**CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1**

<b>Performance Step:</b>	<b>C35, COOLING WATER, Step 5.10.5</b>
<b>Critical <u>N</u></b>	<b>IF either Header A or B pressure lowers to below 85 psig or Annunciator 47020-0204 OR 47520-0203 [47020-0205 OR 470520-0204], LOOP A [B] COOLING WATER LO PRESS, alarms THEN:</b>
	<b>A. OPEN CL-39-3, 121 CLG WTR PUMP DISCH.</b>
	<b>B. Perform one of the following:</b>
	<b>1. Start another cooling water pump AND return to Step 5.10.4.</b>
	<b>OR</b>
	<b>2. Leave 121 Cooling Water Pump in service AND go to Step 5.10.7.</b>
<b>Standard:</b>	<b>Examinee determines this step is NOT applicable because Cooling Water Header Pressure is stable above 85 psig.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C35, COOLING WATER, Step 5.10.6</b>
<b>Critical <u>Y</u></b>	<b>IF cooling water pressure is maintained, THEN:</b>
	<b>A. Place CS-46052, 121 CLG WTR PUMP, in “STOP”.</b>
<b>Standard:</b>	<b>Examinee stops 121 CLG WTR PUMP using CS-46052.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

**CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1**

<b>Performance Step:</b> <b>Critical <u>N</u></b>	<b>C35, COOLING WATER, Step 5.10.6</b> <b>IF cooling water pressure is maintained, THEN:</b> <b>B. OPEN CL-39-3, 121 CLG WTR PUMP DISCH.</b>
<b>Standard:</b>	<b>Examinee directs an out-plant operator to open CL-39-3.</b>
<b>EVALUATOR CUE:</b>	<ul style="list-style-type: none"> <li>• When examinee directs an out-plant operator to open CL-39-3, acknowledge the order, wait 1 minute, and then report CL-39-3 is stuck in the closed position.</li> <li>• After the report for CL-39-3 being stuck closed is given, enter TRIGGER 2 to cause 11 Motor Driven Cooling Water Pump to lockout.</li> </ul>
<b>EVALUATOR NOTE:</b>	<b>Examinee may place 121 CLG WTR PUMP in PULLOUT to prevent auto start. This is NOT a JPM failure.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

**ALTERNATE PATH STARTS HERE**

<b>Performance Step:</b> <b>Critical <u>N</u></b>	<b>C47020-0106, 11 COOLING WATER PUMP LOCKED OUT, Step 1</b> <b>Verify Cooling Water Header pressure restored to normal.</b>
<b>Standard:</b>	<b>Examinee determines cooling water header pressure is NOT restored to normal.</b>
<b>EVALUATOR NOTE:</b>	<b>The examinee may respond using C47020-0204, C47020-0205, C47520-0203, C47520-0204, or C35 AOP2 instead of C47020-0106.</b>
<b>EVALUATOR CUE:</b>	<b>If the examinee requests the status of Unit 2 SI and Non-Safeguards 4KV Buses, then inform examinee SI is NOT active on Unit 2 and all Unit 2 Non-Safeguards 4KV Buses are ENERGIZED.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1

<b>Performance Step:</b>	<b>C47020-0106, 11 COOLING WATER PUMP LOCKED OUT, Step 1 (continued)</b>
<b>Critical <u>Y</u></b>	<b>Start available Cooling Water Pumps, as necessary.</b>
<b>Standard:</b>	<p><b>Examinee starts at least one Cooling Water Pump as follows:</b></p> <ul style="list-style-type: none"> <li>• <b>12 Diesel Driven Cooling Water Pump</b> <ol style="list-style-type: none"> <li>1. <b>Place CS-46336 in MANUAL.</b></li> <li>2. <b>Momentarily place CS-46053 in START.</b></li> </ol> </li> </ul> <p style="text-align: center;"><b>AND/OR</b></p> <ul style="list-style-type: none"> <li>• <b>22 Diesel Driven Cooling Water Pump</b> <ol style="list-style-type: none"> <li>1. <b>Place CS-46537 in MANUAL.</b></li> <li>2. <b>Momentarily place CS-46523 in START.</b></li> </ol> </li> </ul>
<b>EVALUATOR NOTE:</b>	<b>The examinee may respond using C47020-0204, C47020-0205, C47520-0203, C47520-0204, or C35 AOP2 instead of C47020-0106.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

**Terminating Cues:** When the examinee has secured 121 Motor Driven Cooling Water Pump and has restored Cooling Water Header Pressure above 85 psig when 11 Motor Driven Cooling Water Pump locks out, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

**CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1****Simulator Setup:**

1. If an IC is already created for this JPM, then go to step 3.
  2. If an IC is NOT created for this scenario, then create as follows:
    - a. Reset to IC-10.
    - b. Place the simulator in RUN.
    - c. Start 121 Motor Driven Cooling Water Pump using CS-46052.
    - d. Increase Cooling Water load as follows:
      - 1) D1 Diesel Generator:
        - (a) Start D1 using CS-46935, D1 DIESEL GENERATOR.
        - (b) Place CS-46902, D1 DSL GEN EXCITER CONTROL SEL SW, in "MANUAL."
        - (c) Place CS-46948, BKR 15-2 MAN/AUTO CLOSURE SEL SW, in "MANUAL."
        - (d) Place CS-46906, BUS 15 SYNCHROSCOPE SEL SW, in "D1."
        - (e) Adjust CS-46934, D1 DSL GEN GOVERNOR SPEED CONTROL, until the indicator on 41911, SYNCHROSCOPE, is turning slowly in a clockwise direction.
        - (f) As the synchroscope indicator approaches 12 o'clock, CLOSE BKR 15-2 using CS-46950, BUS 15 SOURCE FROM D1 DSL GEN.
        - (g) Place CS-46948, BKR 15-2 MAN/AUTO CLOSURE SEL SW, in "AUTO."
        - (h) Place CS-46906, BUS 15 SYNCHROSCOPE SEL SW, in "OFF."
        - (i) Raise D1 load to approximately 2060 KW using CS-46934, D1 DSL GEN GOVERNOR SPEED CONTROL.
        - (j) Raise D1 VARs to approximately 1000 KVARs by adjusting CS-46933, D1 DSL GEN EXCITER CONTROL.
      - 2) Cooling Water to Unit 1 and Unit 2 CFCUs:
        - (a) Perform the following for the switches listed below:
          - (1) Place all four switches to ISOL.
          - (2) Wait one minute.
          - (3) Place all four switches to RESET.
          - (4) Place all four switches to AUTO.
            - CS-46080, TRAIN A – UNIT 1 CLG WTR/CHILLED WTR ISOL VALVES.
            - CS-46081, TRAIN B – UNIT 1 CLG WTR/CHILLED WTR ISOL VALVES.
            - CS-46772, TRAIN A – UNIT 2 CLG WTR/CHILLED WTR ISOL VALVES.
            - CS-46773, TRAIN B – UNIT 2 CLG WTR/CHILLED WTR ISOL VALVES.
        - (b) Insert remote **CH128**, 11/12 CRDM CLG COIL SPLY/RTN VLVs, to OPEN.
    - e. On the Unit 1 G-Panel ERCS display, run a TREND-4 with the following points:
      - (a) 1P2601A
      - (b) 1P2602A
      - (c) 1F2609A
      - (d) 1F2610A
    - f. Place simulator in FREEZE.
    - g. If desired, save to an available IC.
    - h. Place simulator in RUN.
    - i. Go to step 4.
3. Reset the simulator to **IC-255**, or the IC created from step 2 and place in RUN.
4. Verify total cooling water flow rate is approximately 18000 GPM.

Retention: Life of Plant

Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.

**CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1**

5. If available, run schedule file **CL-11SF.sch** as follows:
  - a. Select open file in the Schedule application.
  - b. Locate schedule file.
  - c. Open schedule file by double clicking it.
  - d. Run the schedule file by pressing the “Stopped” button on the toolbar.
  - e. Verify the schedule file is running.
6. If schedule file is NOT available, then insert malfunctions, remotes, and overrides, as specified by the Simulator Input Summary.
7. Verify the G-Panel ERCS computer is displaying as set-up in step 2.e.
8. Markup steps 5.10.1 – 5.10.3 of C35 as complete.

**SIMULATOR INPUT SUMMARY**

@Time	Event	Action	Description
00:00:00		Insert malfunction CL02A	DIESEL COOLING WATER PUMP #12 FAILS TO START AUTOMATICALLY
00:00:00		Insert malfunction CL02B	DIESEL COOLING WATER PUMP #22 FAILS TO START AUTOMATICALLY
00:00:00		Insert malfunction CL03	121 COOLING WATER PUMP FAILS TO START AUTOMATICALLY
	1	Insert remote CL114 to CLOSED on event 1	121 CLG WTR PUMP DSCH VLV CL-39-3
	2	Insert malfunction CL01A on event 2	COOLING WATER PUMP #11 TRIP
	2	Insert override DI-460525T to False on event 2	121 COOLING WATER PUMP FAILS TO START MANUALLY

**CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1**

**ATTACHMENT 1**

**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written. The individual(s) performing the validation sign and date this form.

\_\_\_\_\_  
Validation Personnel /Date

\_\_\_\_\_  
Validation Personnel/Date

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Validation Personnel /Date

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Validation Personnel/Date

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Validation Personnel /Date

\_\_\_\_\_  
Validation Personnel/Date

CL-11SF, LOSS OF COOLING WATER HEADER PRESSURE, REV. 1

ATTACHMENT 2

JPM Number: CL-11SF

JPM Title: LOSS OF COOLING WATER HEADER PRESSURE

Examinee & ID: \_\_\_\_\_

Evaluator: \_\_\_\_\_

Job Title: \_\_\_\_\_

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

Start Time \_\_\_\_\_

Finish Time \_\_\_\_\_

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).</b>

EVALUATOR'S SIGNATURE: \_\_\_\_\_

*NOTE: Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

**ATTACHMENT 3**

**TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- 11 and 21 Motor Driven Cooling Water Pumps are RUNNING.
- 12 and 22 Diesel Driven Cooling Water Pumps are in STANDBY.
- 121 Motor Driven Cooling Water Pump is RUNNING.
- 121 Motor Driven Cooling Water Pump is NOT aligned as a safeguards pump.
- Steps 5.10.1 through 5.10.3 of C35, COOLING WATER, are complete.
- An out-plant operator is stationed near the 121 Motor Driven Cooling Water Pump with a radio.

**INITIATING CUES:**

- The SS directs you to secure 121 Motor Driven Cooling Water Pump by performing steps 5.10.4 through 5.10.6 of C35, COOLING WATER.

Retention: Life of Plant

Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.





JOB PERFORMANCE MEASURE (JPM)

**SITE:** PRAIRIE ISLAND  
**JPM TITLE:** CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS  
**JPM NUMBER:** ZC-1SF **REV.** 2  
**RELATED PRA INFORMATION:** NONE  
**TASK NUMBERS / TASK TITLE(S):** CRO 022 ATI 00 00 007 / CHANGE FAN COIL UNIT FAN SPEED  
**K/A NUMBERS:** 022 A4.01 **Rating SRO/RO:** 3.6/3.6

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

**EVALUATION LOCATION:** In-Plant:  Control Room:   
 Simulator:  Other:   
 Lab:

Time for Completion: 7 Minutes Time Critical: NO

Alternate Path: YES

**TASK APPLICABILITY:** SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	HASNER Developer		9/16/19 Date
<b>Validated by:</b>	COLLINS Validator (See JPM Validation Checklist, Attachment 1)		9-16-19 Date
<b>Approved by:</b>	SARASIN Training Supervisor		9/16/19 Date

## ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

## JPM BRIEFING/TURNOVER

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Unit 1 is at 100% power.
- 11 FCU is in FAST to the SUPPORT COOLING.
- 12 FCU is in SLOW to the DOME.
- 13 FCU is in FAST to the GAP.
- 14 FCU is in SLOW to the DOME.

**INITIATING CUES:**

- The SS directs you to alternate FCUs per Section 6.6.4.A of 1C19.2, Containment System Ventilation Unit 1, as follows:
  - 11 FCU in SLOW to the DOME.
  - 12 FCU in FAST to the SUP CLG.
  - 13 FCU in SLOW to the DOME.
  - 14 FCU in FAST to the GAP.

Retention: Life of Plant

Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.

ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

**JPM PERFORMANCE INFORMATION**

**Required Materials:** If desired, provide consumable copies of 1C19.2 with the appropriate items N/A'd, circled, and one-lined.

**General References:** 1C19.2, CONTAINMENT SYSTEM VENTILATION UNIT 1  
C47019-0405, 12 CONTAINMENT FAN COIL UNIT MOTOR STATOR HI TEMP

**Task Standards:** Examinee alternates FCUs, stops 12 FCU due to high temperature, and re-aligns 11 FCU to SUPPORT in fast speed.

**Start Time:** \_\_\_\_\_

**NOTE:** When providing "Evaluator Cues" to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee's actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step SHALL result in failure of this JPM, per FP-T-SAT-73, "Licensed Operator Requalification Program Examinations".

<b>Performance Step:</b>	1C19.2, step 6.6.4.A.1:		
<b>Critical</b> <u>Y</u>	Containment Fan Coil Fans and Discharge Dampers		
	1. Shift the desired fan coil units to SLOW by placing the control switch in "OFF" for 15 seconds, then placing the control switch in "SLOW:" <ul style="list-style-type: none"> <li>• CS-46018, 11 CNTMT FAN COIL UNIT</li> <li>• <del>CS-46020, 12 CNTMT FAN COIL UNIT</del></li> <li>• CS-46019, 13 CNTMT FAN COIL UNIT</li> <li>• <del>CS-46021, 14 CNTMT FAN COIL UNIT</del></li> </ul>		
<b>Standard:</b>	Examinee shifts 11 and 13 FCUs to slow speed using CS-46018 and CS-46019.		
<b>Performance:</b>	SATISFACTORY _____	UNSATISFACTORY _____	
<b>Comments:</b>	_____		

ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

**Performance Step:** 1C19.2, step 6.6.4.A.2:  
**Critical** Y

**Align fan coil unit discharge dampers as desired, observing Precaution 4.7:**

- CS-46440, 11 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS
- CS-46441, 12 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS
- CS-46442, 13 FCU DISCH TO CNTMT DOME/GAP DAMPERS
- CS-46443, 14 FCU DISCH TO CNTMT DOME/GAP DAMPERS

**Standard:** Examinee aligns FCU Discharge dampers as follows:

- 11 CFCU to DOME using CS-46440
- 12 CFCU to SUPPORT using CS-46441
- 13 CFCU to DOME using CS-46442
- 14 CFCU to GAP using CS-46443

**Performance:** SATISFACTORY \_\_\_\_\_ UNSATISFACTORY \_\_\_\_\_

**Comments:** \_\_\_\_\_

**Performance Step:** 1C19.2, step 6.6.4.A.3:  
**Critical** N

**Verify associated white fan coil unit damper improper lights remain NOT LIT:**

- ML-44002-0101, 11 CNTMT FCU DISCH DMPRS IMPROPER
- ML-44002-0102, 12 CNTMT FCU DISCH DMPRS IMPROPER
- ML-44002-0201, 13 CNTMT FCU DISCH DMPRS IMPROPER
- ML-44002-0202, 14 CNTMT FCU DISCH DMPRS IMPROPER

**Standard:** Examinee determines the IMPROPER lights are NOT lit.

**Performance:** SATISFACTORY \_\_\_\_\_ UNSATISFACTORY \_\_\_\_\_

**Comments:** \_\_\_\_\_

ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

<b>Performance Step:</b>	<b>1C19.2, step 6.6.4.A.4:</b>
<b>Critical</b> <u>Y</u>	<p>Shift the desired fan coil units to FAST by placing the control switch in "OFF" for at least one (1) second, then placing the control switch in "FAST:"</p> <ul style="list-style-type: none"> <li>• <del>CS-46018, 11 CNTMT FAN COIL UNIT</del></li> <li>• CS-46020, 12 CNTMT FAN COIL UNIT</li> <li>• <del>CS-46019, 13 CNTMT FAN COIL UNIT</del></li> <li>• CS-46021, 14 CNTMT FAN COIL UNIT</li> </ul>
<b>Standard:</b>	<ul style="list-style-type: none"> <li>• Examinee shifts 12 and 14 FCUs to fast speed using CS-46020 and CS-46021.</li> </ul>
<b>Evaluator Note:</b>	When examinee places CS-46020 & CS-46021, 12 & 14 CFCUs, in FAST, then verify AUTO Trigger 1, 12 CFCU High temp, is entered.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C47019-0405, 12 CONTAINMENT FAN COIL UNIT MOTOR STATOR HI TEMP</b>
<b>Critical</b> <u>N</u>	<b>ALTERNATE PATH STARTS HERE</b>
<b>Standard:</b>	Examinee acknowledges annunciator.
<b>Evaluator Note:</b>	12 CFCU high stator temperature annunciator alarms 5 seconds after BOTH 12 & 14 CFCUs are in fast speed.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

<b>Performance Step:</b>	<b>C47019-0405, step 1:</b>
<b>Critical <u>N</u></b>	<b>Verify one of 12 FCU discharge dampers is OPEN. IF necessary, THEN open appropriate damper using CS-46441, 12 FCU DISCH TO DOME/SUPPORT CD-34074/34075 CS.</b>
<b>Standard:</b>	<b>Examinee determines one of 12 FCU discharge dampers are already open.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C47019-0405, step 2:</b>
<b>Critical <u>N</u></b>	<b>Verify cooling water alignment to 12 FCU:</b>
	<ul style="list-style-type: none"> <li>• MV-32379, 12 FCU CLG WTR INLT ISOL MV, OPEN.</li> <li>• MV-32135, 12 FCU CLG WTR OUTL ISOL MV A, OPEN.</li> <li>• MV-32136, 12 FCU CLG WTR OUTL ISOL MV B, OPEN.</li> </ul>
<b>Standard:</b>	<b>Examinee determines cooling water is aligned to 12 FCU.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C47019-0405, step 3.A:</b>
<b>Critical <u>Y</u></b>	<b>IF Steps 1 &amp; 2 did not cause stator temperature to decrease to below alarm setpoint, THEN perform the following:</b>
	<b>1) Stop 12 FCU (FCU is not considered inoperable at this time).</b>
<b>Standard:</b>	<b>Examinee stops 12 CFCU using CS-46020.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

<b>Performance Step:</b>	<b>C47019-0405, step 3.B:</b>
<b>Critical <u>Y</u></b>	<b>2) Verify CD-34073, 11 FCU NORM DISCH TO RX VESSEL SUPPORT, OPEN.</b>
<b>Standard:</b>	<b>Examinee aligns 11 FCU to SUPPORT using CS-46440.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C47019-0405, step 3.C:</b>
<b>Critical <u>Y</u></b>	<b>3) Verify 11 CFCU running in fast.</b>
<b>Standard:</b>	<b>Examinee shifts 11 FCU to fast speed using CS-46018.</b>
<b>Performance:</b>	<b>SATISFACTORY _____ UNSATISFACTORY _____</b>
<b>Comments:</b>	_____

**Terminating Cues:** When the examinee has alternated FCUs, stopped 12 FCU due to high temperature, and has re-aligned 11 FCU to SUPPORT in fast speed, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

**Historical Record:**

## ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

**Simulator Setup:**

1. Reset the simulator to IC developed for this JPM.
2. Place the simulator in RUN and go to step 4.
3. If an IC is NOT created for this JPM, then create one as follows:
  - a. Reset simulator to IC-10 and place in RUN.
  - b. If running this JPM in conjunction with **VC-104S**, then:
    - 1) Take CS-46294, 13 CHG PUMP, to PULLOUT.
    - 2) If also running this JPM in conjunction with **VC-29SF**, then go to step 3.d, if not then continue with next step.
    - 3) Place simulator in FREEZE.
    - 4) If desired, save to an available IC.
    - 5) Place simulator in RUN.
    - 6) Go to step 4.
  - c. If running this JPM in conjunction with **RC-26S**, then:
    - 1) Verify 11 Charging Pump is running in AUTOMATIC and 12 Charging Pump is running in MANUAL at minimum speed.
    - 2) If also running this JPM in conjunction with **VC-29SF**, then go to step 3.d, if not then continue with next step.
    - 3) Place simulator in FREEZE.
    - 4) If desired, save to an available IC.
    - 5) Place simulator in RUN.
    - 6) Go to step 4.
  - d. If also running this JPM in conjunction with **VC-29SF**, then:
    - 1) If available, run schedule files **ZC-1SF.sch & VC-29SF.sch** as follows:
      - (a) Select open file in the Schedule application.
      - (b) Locate schedule file.
      - (c) Open schedule file by double clicking it.
      - (d) Run the schedule file by pressing the "Stopped" button on the toolbar.
      - (e) Verify the schedule file is running.
    - 2) If schedule file is NOT available, then insert malfunctions, remotes, and overrides, as specified by the Simulator Input Summary.
    - 3) If available, open event file **ZC-1SF.evt & VC-29SF.evt** as follows:
      - (a) Select open file in the EVENT application.
      - (b) Locate event file.
      - (c) Open by double clicking file.
    - 4) If event file is NOT available, then enter event codes as specified by the Simulator Event Summary below.
    - 5) Place simulator in FREEZE.
    - 6) If desired, save to an available IC.
    - 7) Place simulator in RUN.
    - 8) Go to step 4.
4. Reset the simulator to designated IC or the IC created from step 3 and place in RUN.
5. Place yellow CAUTION tag on CS-46294, 13 CHG PUMP.
6. Clear recorder memory after each reset.
7. Verify Director or Schedule File matches the input summary below.



ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

**SIMULATOR INPUT SUMMARY**

Insert	Pause	@Time	Event	Action	Description
<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-46457NAST to False on event 1	NRML AF STRT
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-46457SP to False on event 1	STOP
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-46457ST to True on event 1	START
<input type="checkbox"/>	<input type="checkbox"/>				
<input type="checkbox"/>	<input type="checkbox"/>		1	Insert override DI-41111RS to False on event 1	RESET
<input type="checkbox"/>	<input type="checkbox"/>				

@Time	Event	Action	Description
	2	Insert malfunction CP-1T1030A from 90.00000 to 150.00000 in 15 on event 2	12 CNTMT FCU MTR STR T
	2	Insert malfunction M47019:0405W after 5 to Cry_Wolf on event 2	Annunciator malfunction

**SIMULATOR EVENT SUMMARY**

Event ID	Event CODE	Event DESCRIPTION
1	ZVCR457(1)==1	BORIC ACID MU CONTROL TO START
2	HWZCHFFCF(2)==1 & HWZCHFFCF(4)==1	12 & 14 CFCUs IN FAST

ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

**ATTACHMENT 1**  
**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

ZC-1SF, CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS Rev. 2

**ATTACHMENT 2**

**JPM Number:** ZC-1SF

**JPM Title:** CFCU HIGH TEMP WHILE ALTERNATING FAN COIL UNITS, REV. 2

**Examinee & ID:** \_\_\_\_\_

**Evaluator:** \_\_\_\_\_

**Job Title:** \_\_\_\_\_

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

**Start Time** \_\_\_\_\_

**Finish Time** \_\_\_\_\_

**PERFORMANCE RESULTS:**

**SAT:**

**UNSAT:**

<b>COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).</b>

**EVALUATOR'S SIGNATURE:** \_\_\_\_\_

**NOTE:** Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

## ATTACHMENT 3

### TURNOVER SHEET

#### INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- 11 FCU is in FAST to the SUPPORT COOLING.
- 12 FCU is in SLOW to the DOME.
- 13 FCU is in FAST to the GAP.
- 14 FCU is in SLOW to the DOME.

#### INITIATING CUES:

- The SS directs you to alternate FCUs per Section 6.6.4.A of 1C19.2, Containment System Ventilation Unit 1, as follows:
  - 11 FCU in SLOW to the DOME.
  - 12 FCU in FAST to the SUP CLG.
  - 13 FCU in SLOW to the DOME.
  - 14 FCU in FAST to the GAP.



**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16****JPM BRIEFING/TURNOVER**

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Steps 5.1.1.A through 5.1.1.E of 1C20.7, D1/D2 DIESEL GENERATORS, have been completed.

**INITIATING CUES:**

- The Shift Supervisor directs you to manually start D1 Emergency Diesel Generator per steps 5.1.1.F through 5.1.1.N of 1C20.7, D1/D2 Diesel Generators.

Retention: Life of Plant

Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.

**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16**  
**JPM PERFORMANCE INFORMATION**

**Required Materials:**      • NONE

**General References:**      • 1C20.7, D1/D2 DIESEL GENERATORS

**Task Standards:**              • Examinee starts D1 and places voltage control in manual.

**Start Time:**      \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step SHALL result in failure of this JPM, per FP-T-SAT-73, “Licensed Operator Requalification Program Examinations”.

<b>Performance Step:</b>	1C20.7, step 5.1.1.F
<b>Critical <u>N</u></b>	Verify the two (2) amber indicating lights on 44901, D1 DIESEL GEN GOV READY LIGHTS, are LIT.
<b>Standard:</b>	Examinee verifies amber indicating lights are LIT.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16**

<b>Performance Step:</b>	1C20.7, step 5.1.1.G
<b>Critical <u>N</u></b>	Verify the governor load limit is set at (10).
<b>Standard:</b>	Examinee directs an out-plant operator to perform step G.
<b>Evaluator Cue:</b>	When examinee directs out-plant operator to perform step G, then inform examinee that the governor load limit is set at 10.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b>	1C20.7, step 5.1.1.H
<b>Critical <u>N</u></b>	Commence a three (3) minute prelube by placing and holding CS-55313, D1 DSL GEN PRELUBE OIL PMP CS, in the ON position.
<b>Standard:</b>	Examinee directs an out-plant operator to perform step H.
<b>Evaluator Cue:</b>	When examinee directs an out-plant operator to perform step H & I, then inform examinee that CS-55313 is in the ON position and the prelube pump is running.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____



**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16**

<b>Performance Step:</b>	1C20.7, step 5.1.1.I
<b>Critical <u>N</u></b>	After three (3) minutes of prelube, then release CS-55313, D1 DSL GEN PRELUBE OIL PMP CS, AND notify the Control Room that prelube is complete.
<b>Standard:</b>	Examinee waits for report that prelube is complete.
<b>Evaluator Cue:</b>	Inform examinee that the 3-minute prelube is complete. Time compression may be used at examiner's discretion. It is not intended to wait 3 minutes before informing examinee the prelube is complete.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b>	1C20.7, step 5.1.1.J
<b>Critical <u>N</u></b>	Notify Operators stationed locally that D1 is about to be started.
<b>Standard:</b>	Examinee notifies local operators they are about to start D1.
<b>Evaluator Cue:</b>	When examinee informs local operators of D1 start, THEN acknowledge the information.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b>	1C20.7, step 5.1.1.K
<b>Critical <u>Y</u></b>	Start D1 using CS-46935, D1 DIESEL GENERATOR.
<b>Standard:</b>	Examinee starts D1.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16**

<b>Performance Step:</b>	1C20.7, step 5.1.1.L
<b>Critical <u>N</u></b>	Verify 41925, D1 EMERG GENERATOR TACHOMETER, indicates approximately 900 rpm.
<b>Standard:</b>	Examinee verifies 41925 indicates 900 rpm.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b>	1C20.7, step 5.1.1.M
<b>Critical <u>N</u></b>	Verify the two (2) amber indicating lights on 44901, D1 DIESEL GEN GOV READY LIGHTS, are LIT.
<b>Standard:</b>	Examinee verifies amber indicating lights are LIT.
<b>Evaluator Note:</b>	Per note in 1C20.7, examinee may deem it necessary to adjust the governor speed setting to light the amber lights.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b>	1C20.7, step 5.1.1.N
<b>Critical <u>Y</u></b>	Place CS-46902, D1 DSL GEN EXCITER CONTROL SEL SW, in "MANUAL".
<b>Standard:</b>	Examinee places CS-46902 in manual.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** When the examinee has started D1 and placed voltage control in manual, then the JPM is complete.

**Stop Time:** \_\_\_\_\_

**Historical Record:**

**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16****Simulator Setup:**

1. If an IC is already created for this JPM, then go to step 3.
2. If an IC is Not created for this scenario, then create one as follows:
  - a. Reset the Simulator to **IC-10**.
  - b. Place the simulator in RUN.
  - c. Verify the following:
    - 1) D1 Diesel Generator is NOT running.
    - 2) D1 DSL GEN EXCITER CONTROL SW in AUTO.
    - 3) D1 OUTPUT BKR (15-2) AUTO/MAN SEL SW is in MANUAL.
  - d. Place simulator in FREEZE.
  - e. If desired, save to an available IC.
  - f. Place the simulator in RUN.
  - g. Go to Step 4.
3. Reset the simulator to the IC created from step 2 and place in RUN.
4. Place a "**D1 DSL GEN OOS**" magnetic sign on the G Panel (U1).
5. Mark steps 5.1.1.A through 5.1.1.E of **1C20.7**, D1/D2 DIESEL GENERATORS, as complete.
6. Clear recorder memory after each reset.

**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16**

**ATTACHMENT 1  
JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

**EG-4S, MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM, REV.16**

**ATTACHMENT 2**

**JPM Number:** EG-4S

**JPM Title:** MANUAL START OF D1 DIESEL GENERATOR FROM THE CONTROL ROOM

**Examinee & ID:** \_\_\_\_\_ **Evaluator:** \_\_\_\_\_

**Job Title:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Start Time** \_\_\_\_\_ **Finish Time** \_\_\_\_\_

**PERFORMANCE RESULTS:**

**SAT:**

**UNSAT:**

<b>COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).</b>

**EVALUATOR'S SIGNATURE:** \_\_\_\_\_

***NOTE:*** Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

**ATTACHMENT 3**  
**TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Steps 5.1.1.A through 5.1.1.E of 1C20.7, D1/D2 DIESEL GENERATORS, have been completed.

**INITIATING CUES:**

- The Shift Supervisor directs you to manually start D1 Emergency Diesel Generator per steps 5.1.1.F through 5.1.1.N of 1C20.7, D1/D2 Diesel Generators.



JOB PERFORMANCE MEASURE (JPM)

**SITE:** PRAIRIE ISLAND

**JPM TITLE:** SECURE SFP NORMAL VENTILATION

**JPM NUMBER:** SF-3S **REV.** 0

**RELATED PRA INFORMATION:** NONE

**TASK NUMBERS / TASK TITLE(S):** CRO 088 ATI 00 00 003 SHUTDOWN SFP NORMAL VENT

**K/A NUMBERS:** 2.1.20 **Rating SRO/RO:** 4.6/4.6

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

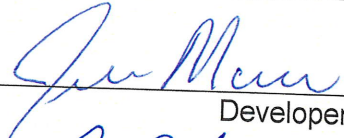

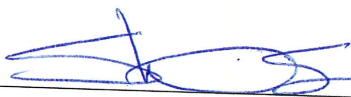
**EVALUATION LOCATION:** In-Plant:  Control Room:   
 Simulator:  Other:   
 Lab:

Time for Completion: 4 Minutes Time Critical: NO

Alternate Path: NO

**TASK APPLICABILITY:** SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	 Developer	MAJUNO	2/25/20 Date
<b>Validated by:</b>	 Validator (See JPM Validation Checklist, Attachment 1)	Harner	2/25/20 Date
<b>Approved by:</b>	 Training Supervisor	SARRASH	3/3/2020 Date

**SF-3S, SECURE SFP NORMAL VENTILATION, REV. 0****JPM BRIEFING/TURNOVER**

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- You are the Unit 1 Lead Reactor Operator.
- Duty Chemist has requested to collect SFP ventilation sample filters.

**INITIATING CUES:**

- The Shift Supervisor directs you to shutdown Spent Fuel Pool Normal Ventilation per section 5.1.3 of C37.2, Spent Fuel Pool Normal and Special Vent Systems.

Retention: Life of Plant

Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.



**SF-3S, SECURE SFP NORMAL VENTILATION, REV. 0**  
**JPM PERFORMANCE INFORMATION**

**Required Materials:**      •    **NONE**

**General References:**      •    **C37.2 Spent Fuel Pool Normal and Special Vent Systems**

**Task Standards:**            •    **Examinee stops 121 SPENT FUEL POOL MAKE-UP AIR FAN and 121 SPENT FUEL POOL NORMAL EXHST FAN.**

**Start Time:**            \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step **SHALL** result in failure of this JPM, per FP-T-SAT-73, “Licensed Operator Requalification Program Examinations”.

<b>Performance Step:</b>	<b>C37.2, step 5.1.3.A.1:</b>
<b>Critical <u>Y</u></b>	<b>Shutdown Spent Fuel Pool Normal Ventilation as follows:</b>
	1. <b>Momentarily place CS-46071, 121 SPENT FUEL POOL MAKE-UP AIR FAN, in the STOP position.</b>
<b>Standard:</b>	<b>Examinee stops 121 SPENT FUEL POOL MAKE-UP AIR FAN.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**SF-3S, SECURE SFP NORMAL VENTILATION, REV. 0**

<b>Performance Step:</b>	<b>C37.2, step 5.1.3.A.2:</b>
<b>Critical <u>Y</u></b>	<b>Shutdown Spent Fuel Pool Normal Ventilation as follows:</b> <b>2. Momentarily place CS-46079, 121 SPENT FUEL POOL</b> <b>NORMAL EXHST FAN, in the STOP position.</b>
<b>Standard:</b>	<b>Examinee stops 121 SPENT FUEL POOL NORMAL EXHST FAN.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>C37.2, step 5.1.3.B:</b>
<b>Critical <u>N</u></b>	<b>Notify the Duty Chemist that the Spent Fuel Pool Normal Ventilation System has been shutdown so the sample filters can be collected. Also inform the Duty Chemist of the status of the Spent Fuel Special Ventilation System.</b>
<b>Standard:</b>	<b>Examinee reports that Spent Fuel Normal and Special Ventilation Systems are not running.</b>
<b>Evaluator Cue:</b>	<b>When the examinee reports to the Duty Chemist, the status of Spent Fuel Pool Ventilation Systems, then acknowledge the report.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**Terminating Cues:** When examinee stops 121 SFP Normal Ventilation Make-up and Exhaust Fans and reported to the duty Chemist, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

**Historical Record:**

## SF-3S, SECURE SFP NORMAL VENTILATION, REV. 0

### Simulator Setup:

1. If an IC is already created for this JPM, then go to step 3.
2. If an IC is NOT created for this JPM, then create one as follows:
  - a. Reset to **IC-10**.
  - b. Verify Spent Fuel Pool Normal Ventilation is running.
  - c. Place simulator in RUN.
3. Clear recorder memory after each reset.

**SF-3S, SECURE SFP NORMAL VENTILATION, REV. 0**

**ATTACHMENT 1**  
**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

SF-3S, SECURE SFP NORMAL VENTILATION, REV. 0

ATTACHMENT 2

JPM Number: SF-3S

JPM Title: SECURE SFP NORMAL VENTILATION

Examinee & ID: \_\_\_\_\_ Evaluator: \_\_\_\_\_

Job Title: \_\_\_\_\_ Date: \_\_\_\_\_

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).</b>

EVALUATOR'S SIGNATURE: \_\_\_\_\_

**NOTE:** Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.

## ATTACHMENT 3

### TURNOVER SHEET

**INITIAL CONDITIONS:**

- Unit 1 is at 100%.
- You are the Unit 1 Lead Reactor Operator.
- Duty Chemist has requested to collect SFP ventilation sample filters.

**INITIATING CUES:**

- The Shift Supervisor directs you to shutdown Spent Fuel Pool Normal Ventilation per section 5.1.3 of C37.2, Spent Fuel Pool Normal and Special Vent Systems.



JOB PERFORMANCE MEASURE (JPM)

SITE: PRAIRIE ISLAND

JPM TITLE: NIS POWER RANGE DAILY CALIBRATION

JPM NUMBER: NI-5S REV. 2

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 015 007 02 01 000 / PERFORM NORMAL/ALTERNATE NIS CALIBRATION OF THERMAL POWER

K/A NUMBERS: 015 A1.01 Rating SRO/RO: 3.5/3.8

APPLICABLE METHOD OF TESTING:

Discussion:  Simulate/walkthrough:  Perform:

EVALUATION LOCATION: In-Plant:  Control Room:   
Simulator:  Other:   
Lab:

Time for Completion: 12 Minutes Time Critical: NO

Alternate Path: NO

TASK APPLICABILITY: SRO:  RO:  NLO

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	Fredrick Collins Developer		7-13-2020 Date
<b>Validated by:</b>	<i>OBTAINED SIGNATURE AUTHORITY TO REPRESENT</i> Justin Hasner Validator (See JPM Validation Checklist, Attachment 1)		7/27/2020 Date
<b>Approved by:</b>	 Training Supervisor		7/27/2020 Date

## NI-5S, NIS POWER RANGE DAILY CALIBRATION Rev. 2

## JPM BRIEFING/TURNOVER

*You may use any approved reference materials normally available including logs. Make all written reports, oral reports, and log entries as if the evolution is actually being performed.*

*EOP Immediate Actions are required to be performed from memory. After completing immediate action steps without using the procedure, you may then use any approved reference materials.*

*If this JPM is performed on the simulator, the JPM administrator should only give cues that are not indicated on the simulator. If simulator indication is sufficient to indicate the completion of a step, the JPM administrator should not have to give a cue to the trainee to continue the evolution.*

I will explain the initial conditions, which step(s) to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

**DURING THE JPM, ENSURE PROPER SAFETY PRECAUTIONS, FME, AND/OR RADIOLOGICAL CONCERNS AS APPLICABLE ARE FOLLOWED.**

**INITIAL CONDITIONS:**

- Unit 1 is at 50% power.
- Rod Control is in MANUAL.
- A load change is NOT in progress.
- Load follow is NOT in progress.
- ERCS is out of service.
- SP 1005, NIS Power Range Daily Calibration, is complete up to step 8.6.3.
- Average Reactor Thermal Power has been calculated per SP 1005B and is 50.2%.

**INITIATING CUES:**

- The SS directs you to complete step 8.6 of SP 1005, NIS Power Range Daily Calibration.

Retention: Life of Plant  
Retain in: Training Record

Form retained in accordance with record retention schedule identified in FP-G-RM-01.



NI-5S, NIS POWER RANGE DAILY CALIBRATION Rev. 2

**JPM PERFORMANCE INFORMATION**

**Required Materials:** Consumable copy of SP 1005 with section 6.0 complete, section 7.0 marked as N/A, and section 8.0 complete up to step 8.6.3.

**General References:** SP 1005, NIS POWER RANGE DAILY CALIBRATION

**Task Standards:** Examinee determines N42 requires adjustment and adjusts the gain on N42 until N42 power is between 50.2% and 50.7%.

**Start Time:** \_\_\_\_\_

**NOTE:** When providing “Evaluator Cues” to the examinee, care must be exercised to avoid prompting the examinee. Typically cues are only provided when the examinee’s actions warrant receiving the information (i.e., the examinee looks or asks for the indication).

**IMPORTANT:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step SHALL result in failure of this JPM, per FP-T-SAT-73, “Licensed Operator Requalification Program Examinations”.

<b>Performance Step:</b>	SP 1005 Step 8.6.4
<b>Critical <u>Y</u></b>	Record “INITIAL GAIN SETTING” R303 for the NIS channel in Table 1, Part C.
<b>Standard:</b>	Examinee records the initial gain setting for N42 (~5.04)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b>	SP 1005 Step 8.6.5, Attachment B Step 1
<b>Critical <u>Y</u></b>	Unlock potentiometer.
<b>Standard:</b>	Examinee unlocks N42 GAIN potentiometer.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

NI-5S, NIS POWER RANGE DAILY CALIBRATION Rev. 2

<b>Performance Step:</b>	<b>SP 1005 Step 8.6.5, Attachment B Step 2</b>
<b>Critical <u>Y</u></b>	<b>Adjust the gain on the NIS POWER RANGE B drawer until NIS power is within the range of, equal to thermal power to 0.5% (2.0% for load change conditions) greater than thermal power.</b>
<b>Standard:</b>	<b>Examinee adjusts the gain on N42 until N42 power is between 50.2% and 50.7%.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>SP 1005 Step 8.6.5, Attachment B Step 3</b>
<b>Critical <u>N</u></b>	<b>Lock the potentiometer in place.</b>
<b>Standard:</b>	<b>Examinee locks the potentiometer in place.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>SP 1005 Step 8.6.6</b>
<b>Critical <u>N</u></b>	<b>Record the "FINAL GAIN SETTING" in Table 1, Part C</b>
<b>Standard:</b>	<b>Examinee records the final gain setting for N42.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**Terminating Cues:** When examinee has determined N42 requires adjustment and has adjusted the gain on N42 until N42 power is between 50.2% and 50.7%, then this JPM is complete.

**Stop Time:** \_\_\_\_\_

## NI-5S, NIS POWER RANGE DAILY CALIBRATION Rev. 2

**Simulator Setup:**

1. If an IC is already created for this JPM, then go to step 3.
2. If an IC is NOT created for this JPM, then create one as follows:
  - a. Reset to IC-8.
  - b. Place the simulator in RUN.
  - c. Place rods in MANUAL.
  - d. Slowly adjust the following remotes one at a time (~ remote FINAL VALUE):
    - 1) **NI141** until N41 is reading 50.4% (53.5).
    - 2) **NI142** until N42 is reading 50.0% (should not require adjustment).
    - 3) **NI143** until N43 is reading 50.3% (53.4).
    - 4) **NI144** until N44 is reading 50.4% (53.5).
3. Reset the simulator to IC-255, or the IC created from step 2.
4. Provide a marked up copy of SP 1005 (see link below).
5. Ensure N41 pot is adjusted back to its normal position when JPM is complete.

NI-5S, NIS POWER RANGE DAILY CALIBRATION Rev. 2

**ATTACHMENT 1**  
**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the cover page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
2. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6. If the task is NOT time critical, has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required? Not applicable to Non-Licensed Operators	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	

All applicable questions must be answered "YES" or the JPM is not valid for use. If all applicable questions are answered "YES" then the JPM is considered valid and can be performed as written.

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**ATTACHMENT 2**

**JPM Number:** NI-5S

**JPM Title:** NIS POWER RANGE DAILY CALIBRATION, REV. 2

**Examinee & ID:** \_\_\_\_\_

**Evaluator:** \_\_\_\_\_

**Job Title:** \_\_\_\_\_

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

**Start Time** \_\_\_\_\_

**Finish Time** \_\_\_\_\_

**PERFORMANCE RESULTS:**

**SAT:**

**UNSAT:**

<b>COMMENTS/FEEDBACK: (Make written comments for any steps graded unsatisfactory).</b>

**EVALUATOR'S SIGNATURE:** \_\_\_\_\_

**NOTE:** *Only this page needs to be retained in examinee's record if completed satisfactorily. If unsatisfactory performance is demonstrated, the entire JPM should be retained.*

## ATTACHMENT 3

### TURNOVER SHEET

#### INITIAL CONDITIONS:

- Unit 1 is at 50% power.
- Rod Control is in MANUAL.
- A load change is NOT in progress.
- Load follow is NOT in progress.
- ERCS is out of service.
- SP 1005, NIS Power Range Daily Calibration, is complete up to step 8.6.3.
- Average Reactor Thermal Power has been calculated per SP 1005B and is 50.2%.

#### INITIATING CUES:

- The SS directs you to complete step 8.6 of SP 1005, NIS Power Range Daily Calibration.