

	<b>JOB PERFORMANCE MEASURE (JPM)</b>
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**SITE:** Kewaunee Power Station

**JPM TITLE:** Locally Control Feed Flow to Minimize RCS Cooldown with Both SGs Faulted

**JPM NUMBER:** AO-E02-JP02A **REV.** A

**RELATED PRA INFORMATION:** Steam or Feedwater Line Break rated 9% for CDF / LERF.  
Establishing Heat Sink is rated in the top 10 Important Operator Actions.  
Auxiliary Feedwater is ranked number 3 system in PRA Importance

**TASK NUMBER(S) / TASK TITLE(S):** E020020504 / Respond to Uncontrolled Depressurization of BOTH Steam Generators

**K/A NUMBERS:** E12EA1.1 RO value 3.8 / SRO value 3.8

**APPLICABLE METHOD OF TESTING:**

Discussion: ☐ Simulate/walkthrough: ☒ Perform: ☐

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

Time for Completion: 10 Minutes Time Critical: No

Alternate Path / Faulted: No

**TASK APPLICABILITY:** NAO, RO, SRO

Additional signatures may be added as needed.

<b>Developed by:</b>		
	Instructor	Date
<b>Validated by:</b>		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>		
	Training Supervisor	Date

**AO-E02-JP02A, Locally Control Feed Flow with Both S/G's Faulted, Rev. A**

**JPM Number:** AO-E02-JP02A

Locally Control Feed Flow to Minimize RCS Cooldown with Both SGs

**JPM Title:** Faulted

**Examinee:** \_\_\_\_\_

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

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

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

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

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

**PERFORMANCE RESULTS:**

**SAT:**

**UNSAT:**

**COMMENTS/FEEDBACK: (Comments shall be made 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.*

**AO-E02-JP02A, Locally Control Feed Flow with Both S/G's Faulted, Rev. A**

**JPM BRIEFING/TURNOVER**

*Add required site specific JPM briefing material here:*

*i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*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.*

**Read to Examinee:**

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.

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

**Note to Instructor:**

1. Human Performance attributes should be visible. The student may use obvious STAR and or request Peer Checks.
2. If peer checks are requested, the Instructor should reply – “Peer Check Acknowledged”. The instructor will acknowledge use of the human performance tool and not validate the proper component manipulation.

**This should be explained to the student at this time.**

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.

**NOTE**

**THE STEPS IN THIS JPM SHOULD BE: SIMULATED**

**INITIAL CONDITIONS:**

1. You are the Equipment Operator.
2. The crew is responding to an Uncontrolled Depressurization of Both Steam Generators in accordance with ECA-2.1, Uncontrolled Depressurization of Both Steam Generators.
3. The only operating pump is the Turbine-Driven AFW pump.
4. The TD AFW Pump discharge header pressure reads 930 psig.
5. The Control Room reports total AFW flow is 280 gpm.

**INITIATING CUES (IF APPLICABLE):**

The Control Room directs you to complete step 2.a.3) of ECA-2.1 while maintaining at least 205 gpm total AFW flow.

**AO-E02-JP02A, Locally Control Feed Flow with Both S/G's Faulted, Rev. A**

**JPM PERFORMANCE INFORMATION**

**Required Materials:**      **Gloves (Safety Eqpt.); ECA-2.1 Rev. S step 2.**

**General References:**    **None**

**Task Standards:**            **AFW-2C is throttled to maintain flow equal to or above 205 gpm, and below 260 gpm and the T/D AFW Low Disch Press Trip Bypass switch is in BYPASS position.**

**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).

**NOTE:** 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.

**AO-E02-JP02A, Locally Control Feed Flow with Both S/G's Faulted, Rev. A**

**Performance Step: 1**

**Critical: Yes**

**ECA-2.1, step 2.a.3)**

**Maintain AFW pump discharge pressures greater than 1000 psig:  
Locally throttle AFW-2C, T/D AFW Pump Discharge.**

**Standard:**

- 1. Operator turns the AFW-2C handwheel clockwise to close the valve.**
- 2. Operator stops turning handwheel when total flow is reported at 205 gpm.**

**Evaluator Note:**

**The TD AFW pump discharge pressure gauge is located on the instrument cluster on the center of the east wall. The operator may also request the control room to provide pressure readings while adjusting valve. AFW-2C, a rising stem gate valve, is located on the west side, south end of TD AFW pump between chest and head level. The operator may initially close the valve below 205 gpm flow, but shall reposition the valve open to maintain at least 205 gpm total flow.**

**Evaluator Cue:**

**Initial discharge pressure reads 930 psig on PI-11255, TD AFW Pump Discharge Pressure Indicator. (Also, provide this reading if the operator requests value from Control Room operator.)**

**As the operator throttles close the valve: Stem lowers and**

- 1) As Control Room Operator: Report total flow lowering from 280 gpm to 205 gpm.**
- 2) Pump discharge pressure slowly rising from 930 to 980 psig as flow lowers. (At 205 gpm reported flow, pressure reads 980 psig.)**

**Performance:**

**SATISFACTORY ☐ UNSATISFACTORY ☐**

**Comments:**

\_\_\_\_\_

**AO-E02-JP02A, Locally Control Feed Flow with Both S/G's Faulted, Rev. A**

<b>Performance Step: 2</b>	<b>ECA-2.1, step 2.a.3)a) Contingency Action</b>
<b>Critical: Yes</b>	If TDAFW Pump discharge pressure could NOT be maintained greater than 1000 psig, THEN locally perform the following: Position TDAFW Pump Low Dish Press Trip Bypass switch to BYPASS.
<b>Standard:</b>	The TDAFW Pump Low Dish Press Trip Bypass switch is selected to BYPASS.
<b>Evaluator Note:</b>	The TDAFW Pump Low Discharge Pressure Trip Bypass switch is the upper switch, located on panel TB 2718, with label T/D AFW PUMP LOW DISCH PRESS TRIP BYPASS in the TD AFW Pump room east wall near the north (turbine) end.
<b>Evaluator Cue:</b>	When operation indicated: Switch is in BYPASS.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**AO-E02-JP02A, Locally Control Feed Flow with Both S/G's Faulted, Rev. A**

<b>Performance Step: 3</b>	<b>ECA-2.1, step 2.a.3)b) Contingency Action</b>
<b>Critical: No</b>	If TDAFW Pump discharge pressure could NOT be maintained greater than 1000 psig, THEN locally perform the following: Throttle AFW-2C as necessary during RCS cooldown to maintaining TDAFW flow less than 260 gpm
<b>Standard:</b>	Total AFW flow is between 205 and 260 gpm.
<b>Evaluator Note:</b>	<p>This step is provided in the event the operator adjusts flow upward as the result of the upper limit provided in the step (260 gpm). If flow was adjusted to desired flow in Performance Step 1 of this JPM then no further adjustment is required.</p> <p>The limit is provided in the cue; however, if valve operation in open direction is continued flow values should also rise. The step is <b>CRITICAL</b> if the Operator adjust the valve such that given flow value remains above 260 gpm.</p>
<b>Evaluator Cue:</b>	<p>If AFW-2C operation is indicated (toward open): Stem rises and</p> <p>1) As CONTROL ROOM report, AFW flow rising from 205 gpm incrementally up to approximately 260 gpm.</p> <p>2 ) Provide TD AFW discharge pressure lowering from 980 psig to 965 psig.</p>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** EO reports ECA-2.1 step 2.a.3) complete.

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

## TURNOVER SHEET

### **NOTE**

**THE STEPS IN THIS JPM SHOULD BE: SIMULATED**

### **INITIAL CONDITIONS:**

1. You are the Equipment Operator.
2. The crew is responding to an Uncontrolled Depressurization of Both Steam Generators in accordance with ECA-2.1, Uncontrolled Depressurization of Both Steam Generators.
3. The only operating pump is the Turbine-Driven AFW pump.
4. The TD AFW Pump discharge header pressure reads 930 psig.
5. The Control Room reports total AFW flow is 280 gpm.

### **INITIATING CUES (IF APPLICABLE):**

The Control Room directs you to complete step 2.a.3) of ECA-2.1 while maintaining at least 205 gpm total AFW flow.



**AO-E02-JP02A, Locally Control Feed Flow with Both S/G's Faulted, Rev. A**  
**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 signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input 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 type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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Validation Personnel/Date

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Validation Personnel /Date

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

Historical Record: (Optional)



# JOB PERFORMANCE MEASURE (JPM)

**SITE:** KEWAUNEE

**JPM TITLE:** Locally Isolate Dilution Flowpaths

**JPM NUMBER:** AO-FRS-JP01B **REV.** A

**RELATED PRA INFORMATION:** N/A

**TASK NUMBER(S) / TASK TITLE(S):** FRS0010504 / Respond To An ATWS

**K/A NUMBERS:** 029 (ATWS) 2.4.35 RO 3.3 SRO 3.5

## APPLICABLE METHOD OF TESTING:

Discussion: ☐ Simulate/walkthrough: ☒ Perform: ☐

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

Time for Completion: 10 Minutes Time Critical: No

Alternate Path / Faulted: No

**TASK APPLICABILITY:** AO/RO/SRO

Additional signatures may be added as needed.

<b>Developed by:</b>	<b>Stephen Johnson</b>	<b>5/24/04</b>
	Instructor	Date
<b>Validated by:</b>	Ron Giuliani / G Czeiszperger	6/8/2004
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>	Dave Fitzwater	6/8/2004
	Training Supervisor	Date

AO-FRS-JP01B, Locally Isolate Dilution Flowpaths, Rev. A

**JPM Number:** AO-FRS-JP01B

**JPM Title:** Locally Isolate Dilution Flowpaths

**Examinee:** \_\_\_\_\_

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

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

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

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

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

**PERFORMANCE RESULTS:**

**SAT:**

**UNSAT:**

*Delete this table if not required*

\_\_\_\_ Procedure adequately addresses task elements.

Enter Identifier here: \_\_\_\_\_

\_\_\_\_ Other document adequately describes necessary task elements.

Enter Identifier here: \_\_\_\_\_

\_\_\_\_ Task elements described as attached.

**COMMENTS/FEEDBACK: (Comments shall be made 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.*

### JPM BRIEFING/TURNOVER

*Add required site specific JPM briefing material here:*

*i.e., This section is read once for the entire package of JPMs. It is not required to review this section for every JPM being performed in the package. The initial conditions and initiating cue(s)/tasks to be performed should be read and then provided to the examinee.*

*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:**

YOU ARE an extra operator on shift.

THE PLANT experienced an ATWS condition and has been shutdown.

FR-S.1 has been completed through, and including, step 11.

The Reactor Operator has verified that MU-1022, Reactor Makeup Water To Blender, is closed.

#### **NOTE**

**THE STEPS IN THIS JPM SHOULD BE: SIMULATED**

#### **INITIATING CUES (IF APPLICABLE):**

The Control Room directs you to perform the local actions of FR-S.1 step12, b. through e. and verify the dilution paths are isolated.

### JPM PERFORMANCE INFORMATION

**Required Materials:**        **None**

**General References:**      **FR-S.1, Rev. Q**

**Task Standards:**            **All locally operated dilution flow paths are isolated.**

**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).

**NOTE:** 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.

<b>Performance Step:</b>	<b>Step 12.b</b>
<b>Critical <u>N</u></b>	<b>Verify MU-1025, Makeup Water to Alternate Suction, closed.</b>
<b>Standard:</b>	<b>Valve handwheel is rotated fully clockwise, and valve stem is down.</b>
<b>Evaluator Note:</b>	<b>The valve is at the CVS blender north side, just south of the SI Pump A motor.</b>
<b>Evaluator Cue:</b>	<b>The stem is fully down and the handwheel is tight when rotated clockwise.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>Step 12.c</b>
<b>Critical</b> <u>Y</u>	Verify MU-1024, Makeup Water to Mixing tank Isol, is closed.
<b>Standard:</b>	Rotate handwheel clockwise until valve is closed.
<b>Evaluator Note:</b>	The valve is at the inlet of the Chem Mixing Tank, just south of the SI Pump A motor and along the EAST wall.
<b>Evaluator Cue:</b>	The valve stem is out. (As clockwise handwheel operation is indicated) The handwheel rotates until NO further motion occurs. The valve stem is fully down.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>Step 12.c</b>
<b>Critical</b> <u>Y</u>	Verify CVC-423, Mixing tank to Charging Pump Suct Line Isol, is closed.
<b>Standard:</b>	Rotate handwheel clockwise until valve is closed.
<b>Evaluator Note:</b>	The valve is at the outlet of the Chem Mixing Tank, just south of the SI Pump A motor and along the EAST wall.
<b>Evaluator Cue:</b>	The valve stem is out. (As clockwise handwheel operation is indicated) The handwheel rotates until NO further motion occurs. The valve stem is fully down.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Performance Step:****Step 12.d****Critical N**

Verify MU-1031A, RMW to 1A Boric Acid Transfer Pump, is closed.

**Standard:**

Valve handwheel is rotated fully clockwise, and valve stem is down.

**Evaluator Note:**

The valve is in the “manifold” above BATP A.

**Evaluator Cue:**

The stem is fully down and the handwheel is tight when rotated clockwise.

**Performance:**SATISFACTORY ☐ UNSATISFACTORY ☐**Comments:**

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**Performance Step:****Step 12.e****Critical N**

Verify MU-1031B, RMW to 1B Boric Acid Transfer Pump, is closed.

**Standard:**

Valve handwheel is rotated fully clockwise, and valve stem is down.

**Evaluator Note:**

The valve is in the “manifold” above BATP B.

**Evaluator Cue:**

The stem is fully down and the handwheel is tight when rotated clockwise.

**Performance:**SATISFACTORY ☐ UNSATISFACTORY ☐**Comments:**

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<b>Performance Step:</b>	<b>Report completion of local actions of Step 12.</b>
<b>Critical <u>N</u></b>	
<b>Standard:</b>	<b>Report to Control Room actions taken and completion of steps 12.b through 12.e.</b>
<b>Evaluator Cue:</b>	<b>Acknowledge report.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	<hr/>

**Terminating Cues:** This completes the JPM.

**Stop Time:** 

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## TURNOVER SHEET

### INITIAL CONDITIONS:

YOU ARE an extra operator on shift.

THE PLANT experienced an ATWS condition and has been shutdown.

FR-S.1 has been completed through, and including, step 11.

The Reactor Operator has verified that MU-1022, Reactor Makeup Water To Blender, is closed.

### NOTE

**THE STEPS IN THIS JPM SHOULD BE: SIMULATED**

### INITIATING CUES (IF APPLICABLE):

The Control Room directs you to perform the local actions of FR-S.1 step 12, b. through e. and verify the dilution paths are isolated.

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

ALL STEPS IN THIS CHECKLIST ARE TO BE PERFORMED UPON INITIAL VALIDATION AND PRIOR TO USE.
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REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input 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 type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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 Validation Personnel /Date

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 Validation Personnel/Date

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 Validation Personnel /Date

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 Validation Personnel/Date

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 Validation Personnel /Date

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 Validation Personnel/Date

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 Validation Personnel /Date

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 Validation Personnel/Date

Historical Record: (Optional)

	<b>JOB PERFORMANCE MEASURE (JPM)</b>
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**SITE:** Kewaunee Power Station

**JPM TITLE:** Perform Actions Necessary for Control Room Evacuation (Charging Flow)

**JPM NUMBER:** RO-E06-JP01L **REV.** D

**RELATED PRA INFORMATION:** Establishing Charging in a Station Blackout is rated in the top 10 Important Operator Actions. (Conditions for E-O-06 are akin to those for Station Blackout.) Charging is ranked number 5 system in PRA Importance.

**TASK NUMBER(S) / TASK TITLE(S):** E060010501  
Respond to a Fire in an Alternate Fire Zone

**K/A NUMBERS:** 068AA1.06 RO value 4.1 / SRO value 4.2  
068AA1.13 RO value 4.1 / SRO value 4.2

**APPLICABLE METHOD OF TESTING:**

Discussion: ☐ Simulate/walkthrough: ☒ Perform: ☐

**EVALUATION LOCATION:** In-Plant: ☒ Control Room: ☐  
 Simulator: ☐ Other: ☒  
 Lab: ☐ Sim DSP (if avail.)

Time for Completion: 5 Minutes Time Critical: No

Alternate Path / Faulted: No

**TASK APPLICABILITY:** RO, SRO

Additional signatures may be added as needed.

<b>Developed by:</b>		
	Instructor	Date
<b>Validated by:</b>		
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>		
	Training Supervisor	Date

**RO-E06-JP01L, Perform Actions Necessary for Control Room Evacuation (Charging Flow), Rev. D**

**JPM Number:** RO-E06-JP01L

**JPM Title:** Perform Actions Necessary for Control Room Evacuation (Charging Flow)

**Examinee:** \_\_\_\_\_

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

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

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

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

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

**PERFORMANCE RESULTS:**

**SAT:**

**UNSAT:**

**COMMENTS/FEEDBACK: (Comments shall be made 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.*

**RO-E06-JP01L, Perform Actions Necessary for Control Room Evacuation (Charging Flow), Rev. D**

**JPM BRIEFING/TURNOVER**

*Add required site specific JPM briefing material here:*

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

**Note to Instructor:**

1. Human Performance attributes should be visible. The student may use obvious STAR and or request Peer Checks.
2. If peer checks are requested, the Instructor should reply – “Peer Check Acknowledged”. The instructor will acknowledge use of the human performance tool and not validate the proper component manipulation.

**This should be explained to the student at this time.**

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.

**NOTE**

**THE STEPS IN THIS JPM SHOULD BE: SIMULATED**

**INITIAL CONDITIONS:**

1. You are the Control Operator A.
2. The plant has been tripped due to a fire in an alternate fire zone.
3. E-O-06, "Fire in Alternate Fire Zone", is being performed.
4. All steps of E-O-06 through step 22 have been completed.

**INITIATING CUES (IF APPLICABLE):**

Perform E-O-06, step 23 to establish charging flow from the DSP.

**RO-E06-JP01L, Perform Actions Necessary for Control Room Evacuation (Charging Flow), Rev. D**

**JPM PERFORMANCE INFORMATION**

**Required Materials:** E-O-06, Rev. Z (Marked with placekeeping indication up to step 23 for Normal Actions.)

**General References:** N-MI-87-CLA, Rev. M, Dedicated Shutdown System Periodic Checklist (initial switch and controller positions.)

**Task Standards:** Charging Pump C running and charging flow established to RCS.

**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).

**NOTE:** 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.

<b>Performance Step: 1</b>	<b>Step 23.a.1)</b>
<b>Critical: No</b>	<b>VERIFY following:</b> RXCP seal supply line valves CLOSED per Step 13.g.
<b>Standard:</b>	Determine RXCP seal supply line valves are CLOSED.
<b>Evaluator Note:</b>	The operator may check the procedure step (marked as complete as given in Initial Conditions) OR may contact Control Operator B to verify that the step is complete.
<b>Evaluator Cue:</b>	If required, Control Operator B reports Step 13.g complete and the valves are CLOSED.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

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<b>Performance Step: 2</b>	<b>Step 23.a.2)</b>
<b>Critical: No</b>	<b>Verify CVC-212/MV-32115, Seal Water Leakoff Isolation MV CLOSED.</b>
<b>Standard:</b>	<b>CVC-212/MV-32115, Seal Water Leakoff Isolation MV is verified CLOSED.</b>
<b>Evaluator Note:</b>	<b>This valve is normally positioned to CLOSE when DSP is aligned.</b>
<b>Evaluator Cue:</b>	<b>If asked about the position REMOTE/LOCAL switches: All switches are in the LOCAL position. (Performed at Step 14.a of E-O-06.)</b>
	<b>CVC-212 Control Switch is positioned CLOSE. Green Light ON, Light Red OFF.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step: 3</b>	<b>Step 23.a.3)</b>
<b>Critical: No</b>	<b>VERIFY CVC-301/MV-32056, Refueling Water Reac Emerg Makeup LCV OPEN.</b>
<b>Standard:</b>	<b>CVC-301 control switch is verified in OPEN position. CVC-301 Red Light ON, Green Light OFF indication is verified.</b>
<b>Evaluator Note:</b>	<b>This valve is normally positioned to OPEN when DSP is aligned.</b>
<b>Evaluator Cue:</b>	<b>CVC-301 Control Switch is positioned to OPEN. Red Light ON, Green Light OFF.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

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<b>Performance Step: 4</b>	<b>Step 23.a.4)</b>
<b>Critical: No</b>	<b>VERIFY CVC-1/MV-32057, Volume Control Tank Otlt Isol Mv CLOSED.</b>
<b>Standard:</b>	CVC-1 control switch is verified in CLOSE. CVC-1 Green Light ON, Red Light OFF indication is verified.
<b>Evaluator Note:</b>	This valve is normally positioned to CLOSE when DSP is aligned.
<b>Evaluator Cue:</b>	CVC-1 Control Switch is positioned to CLOSE. Green Light ON, Light Red OFF.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: 5</b>	<b>Step 23.a.5)</b>
<b>Critical: No</b>	<b>VERIFY CVC-7/MV-31103, Chg Line Flow Cont Vlv OPEN.</b>
<b>Standard:</b>	CVC-7 demand is verified at 0% (bottom of scale).
<b>Evaluator Note:</b>	This controller is normally positioned to OPEN / 0% when DSP is aligned
<b>Evaluator Cue:</b>	CVC-7 controller wheel rotated fully in the downward direction. Demand needle at bottom of scale.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____



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<b>Performance Step: 6</b>	<b>Step 23.a.6)</b>
<b>Critical: No</b>	<b>VERIFY CVC-11/MV-31229, Chg Line to Cold Leg LP-B RCS Isol Vlv OPEN.</b>
<b>Standard:</b>	CVC-11 control switch is verified in OPEN. CVC-11 Red Light ON, Green Light OFF indication is verified.
<b>Evaluator Note:</b>	This valve is normally positioned to OPEN when DSP is aligned.
<b>Evaluator Cue:</b>	CVC-11 Control Switch is positioned to OPEN. Red Light ON, Green Light OFF.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: 7</b>	<b>Step 23.b.1)</b>
<b>Critical: Yes</b>	<b>START Charging Pump 1C: CLOSE supply breaker by POSITIONING Charging Pump 1C control switch to START.</b>
<b>Standard:</b>	Charging Pump 1C supply breaker closed (Control switch taken to START). Amber light ON; Red, Green and White lights OFF.
<b>Evaluator Note:</b>	Switch is normally in TRIP (Green Flag) – Midposition when DSP is aligned. With the breaker OPEN the GREEN light will be lit.
<b>Evaluator Cue:</b>	If required prior to operation: Green light is lit.  Switch is in START, spring return to mid-position when released. Red flag. Amber light is lit.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

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<b>Performance Step: 8</b>	<b>Step 23.b.2)</b>
<b>Critical: No</b>	<b>PRESS Reset pushbutton and VERIFY annunciator, CHG PMP 1C DRIVE CONT TROUBLE (87220-24), OFF.</b>
<b>Standard:</b>	<b>PRESS Charging Pump 1C Reset PB. Annunciator, 87220-24, is verified OFF.</b>
<b>Evaluator Note:</b>	<b>Annunciator is normally OFF. The significance of this action is to show a motor condition that would prevent start of the pump. No such condition exists.</b>
<b>Evaluator Cue:</b>	<b>Charging Pump 1C Reset PB depressed. Annunciator, CHG PMP 1C DRIVE CONT TROUBLE, OFF.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step: 9</b>	<b>Step 23.b.2)</b>
<b>Critical: Yes</b>	<b>START Charging Pump 1C by POSITIONING Charging Pump 1C control switch to START.</b>
<b>Standard:</b>	<b>Charging Pump 1C Drive Controller contacts closed – Pump running. (Control switch taken to START). Red light ON: Green, Amber and White lights OFF.</b>
<b>Evaluator Cue:</b>	<b>Switch is in START, spring return to mid-position when released. Red flag. Red light is lit.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

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<b>Performance Step: 10</b>	<b>Step 23.c</b>
<b>Critical: Yes</b>	<b>ADJUST Chg Pump 1C Speed Control to increase Pzr Cold Cal Level to 20-50%.</b>
<b>Standard:</b>	<b>Chg Pump 1C Speed Control demand needle above 0% (minimum).</b>
<b>Evaluator Note:</b>	<b>This controller is normally positioned to 0% (minimum).</b>
	<b>Pressurizer level is read on the left panel: 87227 DSP PZR LEVEL COLD CAL LVL IND.</b>
<b>Evaluator Cue:</b>	<b>(Initial) Przr level is 19% and slowly dropping.</b>
	<b>(After adjustment) level is 20% and rising.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**Terminating Cues:** After Charging Pump speed has been adjusted, **CUE: This completes this JPM.**

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

## **TURNOVER SHEET**

### **NOTE**

**THE STEPS IN THIS JPM SHOULD BE: SIMULATED**

### **INITIAL CONDITIONS:**

1. You are the Control Operator A.
2. The plant has been tripped due to a fire in an alternate fire zone.
3. E-O-06, "Fire in Alternate Fire Zone", is being performed.
4. All steps of E-O-06 through step 22 have been completed.

### **INITIATING CUES (IF APPLICABLE):**

Perform E-O-06, step 23 to establish charging flow from the DSP.

**RO-E06-JP01L, Perform Actions Necessary for Control Room Evacuation (Charging Flow), Rev. D**  
**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 signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input 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 type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input 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 type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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Validation Personnel /Date

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Historical Record: (Optional)