



## JOB PERFORMANCE MEASURE (JPM)

**SITE:** PRAIRIE ISLAND

**JPM TITLE:** PLACE ALTERNATE LETDOWN IN SERVICE

**JPM NUMBER:** VC-22SF-1 **REV.** 3

**RELATED PRA INFORMATION:** NONE

**TASK NUMBERS / TASK TITLE(S):** CRO 004 ATI 023

**K/A NUMBERS:** 2.1.23

## APPLICABLE METHOD OF TESTING:

Discussion: ☐ Simulate/walkthrough: ☐ Perform: ☒

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

Time for Completion: 15 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>	<b>Bill Markham</b>	<b>03/14/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/08/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

## VC-22-SF-1, PLACE ALTERNATE LETDOWN IN SERVICE, REV. 3

JPM Number: VC-22SF-1JPM Title: PLACE ALTERNATE LETDOWN IN SERVICE

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

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.*

Retention: Life of Plant

Retain in: Training Record

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

**VC-22-SF-1, PLACE ALTERNATE LETDOWN IN SERVICE, REV. 3****JPM BRIEFING/TURNOVER**

Use NUREG-1021, Appendix E, for JPM briefing.

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 operating at 4% power.
- A fuel failure has occurred which has resulted in elevated RCS activity levels.
- Normal Letdown has been isolated.
- A Charging pump is operating in manual and flow has been reduced to minimum.
- RCS activity is  $6 \times 10^4 \mu\text{Ci/CC}$ .
- A pre-job briefing has been conducted.
- 1C12.1 AOP4, Alternate Letdown Flowpaths, is in progress.
- In step 2.4.3; the SS has selected the method in Section 2.4.4.

**INITIATING CUES (IF APPLICABLE):**

- The SS directs you to place alternate letdown in service per 1C12.1 AOP4, Section 2.4.4 and control pressurizer level between 25% and 50%.

## VC-22-SF-1, PLACE ALTERNATE LETDOWN IN SERVICE, REV. 3

JPM PERFORMANCE INFORMATION

Required Materials: Simulator

General References: 1C12.1 AOP4

Task Standards: Alternate letdown is established and pressurizer level is being controlled.

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.

**Performance Step:** Open SV-37037, Gas Vent from Reactor Head to RCS Vent Sys Train A  
**Critical (SEQ-1)** OR  
 Open SV-37038, Gas Vent from Reactor Head to RCS Vent Sys Train B.

**Standard:** SV-37037 open using CS-46283 OR SV-37038 open using CS-46286.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Open SV-37039, RCS Vent Sys to Press Relief Tank Train A to establish letdown  
**Critical (SEQ-1)** flow from the RCS to the PRT.

**Standard:** Attempts to open SV-37039 using CS-46284. Valve will NOT Open.

**Evaluator Cue:** If asked, as SS, acknowledge report of failure and inform the candidate, "Instrument air is available, place control switches which were repositioned, back to their original position and proceed to section 2.4.5 of 1C12.1 AOP4."

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

Retention: Life of Plant

Retain in: Training Record

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

## VC-22-SF-1, PLACE ALTERNATE LETDOWN IN SERVICE, REV. 3

<b>Performance Step: Critical Y (SEQ-2)</b>	Verify CV-31339, LTDWN LINE CNTMT ISOL valve, is closed.
<b>Standard:</b>	CV-31339 closed using CS-46166.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical (SEQ-3)</b>	Establish charging to the Regen HX by adjusting CV-31198, CHG Line Flow Cont valve and the inservice charging pump speed. Verify sufficient charging to prevent flashing of letdown.
<b>Standard:</b>	CHG FLOW TO REGEN HX, 1FI-128B, increased to about 20 gpm or more while maintaining seal injection flow between 6 and 10 gpm.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical Y (SEQ-4)</b>	Open CV-31226 , Letdown Line Isol valve.
<b>Standard:</b>	CV-31226 opened using CS-46165.
<b>Evaluator Note:</b>	<b>The control switch must be held open until the valve is full open.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical Y (SEQ-4)</b>	Open CV-31255, Letdown Line Isol valve.
<b>Standard:</b>	CV-31255 opened using CS-46133.
<b>Evaluator Note:</b>	<b>The control switch must be held open until the valve is full open.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

## VC-22-SF-1, PLACE ALTERNATE LETDOWN IN SERVICE, REV. 3

<b>Performance Step: Critical Y (SEQ-4)</b>	Open the desired letdown orifice isolation valve.
<b>Standard:</b>	CV-31325 opened using CS-46170 or CV-31326 opened using CS-46171 or CV-31327 opened using CS-46174.
<b>Evaluator Note:</b>	<b>This flowpath is from the letdown line, through the letdown relief to the PRT.</b>
<b>Evaluator Cue:</b>	<b>If asked, direct the examinee to open CV-31325 ONLY.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical Y (SEQ-5)</b>	When the desired pressurizer level is obtained, then perform the following: <ul style="list-style-type: none"> <li>• Close the letdown orifice isolation valve opened in the previous step.</li> <li>• Close CV-31226 and CV-31255.</li> </ul>
<b>Standard:</b>	The Candidate closes the following at the desired Pressurizer level of 25% to 50%. <ul style="list-style-type: none"> <li>• CV-31325 using CS-46170 or CV-31326 using CS-46171 or CV-31327 using CS-46174.</li> <li>• CV-31226 using CS-46165 <u>and</u> CV-31255 using CS-46133.</li> </ul>
<b>Evaluator Note:</b>	<b>47012-0406 AND 47015-0608 are expected alarms when the letdown begins to go the PRT.</b>
<b>Evaluator Cue:</b>	<b>When pressurizer level is trending downward, inform the candidate that, "the desired pressurizer level has been reached."</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** After Pressurizer level is being maintained 25% to 50%, inform the candidate, "this JPM is complete."

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

Retention: Life of Plant

Retain in: Training Record

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

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Unit 1 is operating at 2% power.
- A fuel failure has occurred which has resulted in elevated RCS activity levels.
- Normal Letdown has been isolated.
- A Charging pump is operating in manual and flow has been reduced to minimum.
- RCS activity is  $6 \times 10^4$   $\mu\text{Ci/CC}$ .
- A pre-job briefing has been conducted.
- 1C12.1 AOP4, Alternate Letdown Flowpaths, is in progress.
- In step 2.4.3 the method in Section 2.4.4 has been selected by the SS.

### INITIATING CUES (IF APPLICABLE):

- The SS directs you to place alternate letdown in service per 1C12.1 AOP4, Section 2.4.4 and control pressurizer level between 25% and 50%.

Retention: Life of Plant

Retain in: Training Record

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

## VC-22SF-1, PLACE ALTERNATE LETDOWN IN SERVICE

**SIMULATOR SETUP****INSTRUCTOR GUIDE:**

- Initialize the simulator to IC-6.
- Place simulator in "RUN" and allow ERCS to come up and stabilize. Power must be stabilized at 4%.

**Note:** R-4 and R-9 high range of detection is 10R/hr. The malfunctions enter values slightly higher.

- Enter malfunctions to cause R-9 and R-4 to read 10 R/hr. **(Relative Order 0)**
- Use ERCS to check the local meters to ensure that R-4 and R-9 read >10 R/hr.
- Enter override to fail SV-37039 as is. **(Relative Order 1)**
- Per 1C12.1, isolate letdown as follows:
  - Close letdown isolation valves CV-31226 and CV-31255
  - Verify orifice isolations are closed.
  - Allow pressurizer level to rise to about 40%.
  - Reduce charging to minimum & close the charging line flow control valve CV-31198.
  - Place letdown pressure controller in "MANUAL" at 50% output with the manual knob

<i>Relative Order</i>	<i>System or Panel Drawing</i>	<i>TYPE</i>	<i>CODE</i>	<i>Severity or Value</i>	<i>Event Trigger</i>	<i>TIMING</i>	<i>DESCRIPTION</i>
0		Malf	RM04	100			Fails R4 high > 10R
0		Malf	RM09	100			Fails R4 high > 10R
1	CB C1-C24	OVRD DI	DI-46284O OPEN	OFF			SV-37039 Fails As-Is

Retention: Life of Plant

Retain in: Training Record

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



## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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

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Validation Personnel /Date

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Validation Personnel/Date

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:** PERFORM RCS LEAKAGE DETERMINATION USING BOARD INDICATIONS

**JPM NUMBER:** RC-19S                      **REV.** 2

**RELATED PRA INFORMATION:** NONE

**TASK NUMBERS / TASK TITLE(S):** CRO 002 ATI 009

**K/A NUMBERS:** 002 A3.01

**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: NO

**TASK APPLICABILITY:** SRO: ☒ RO: ☒ NLO ☐

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Bill Markham</b>	<b>03/14/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/08/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

Retention: Life of Plant

Retain in: Training Record

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

**RC-19S, PERFORM RCS LEAKAGE DETERMINATION USING BOARD INDICATIONS, REV. 2****JPM Number:** RC-19S**JPM Title:** PERFORM RCS LEAKAGE DETERMINATION USING BOARD INDICATIONS**Examinee:** \_\_\_\_\_**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.*

Retention: Life of Plant

Retain in: Training Record

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

**RC-19S, PERFORM RCS LEAKAGE DETERMINATION USING BOARD INDICATIONS, REV. 2****JPM BRIEFING/TURNOVER**

Use NUREG-1021 Appendix E, for JPM Briefing.

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.
- Automatic charging pump speed has increased to compensate for a slow Pressurizer level decrease.
- Both charging pumps were placed in Manual and with increased speed to maintain Pressurizer Level steady.
- Pressurizer level, RCS temperature, and Reactor power have been stable for the last 5 minutes.
- ERCS LEAK program is UNAVAILABLE.

**INITIATING CUES (IF APPLICABLE):**

- You have been directed by the SS to perform a leak rate on Unit 1 using control board indications per 1C4AOP1.

Retention: Life of Plant

Retain in: Training Record

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

## RC-19S, PERFORM RCS LEAKAGE DETERMINATION USING BOARD INDICATIONS, REV. 2

**JPM PERFORMANCE INFORMATION**

Required Materials: 1C4 AOP1

General References: 1C4 AOP1

Task Standards: Calculate the RCS leak rate within  $\pm 4.4$  GPM of ERCS using Control Board Indications.

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 Regualification Program Examinations.

<b>Performance Step:</b> <b>Critical Y (SEQ-1)</b>	Determine the following information: CHG FLOW TO REGEN HX (1FI128B) RCP SEAL WATER INJ FLOW (1FI115A,1FI116A) LTDN HX OUTL FLOW (1FI134) RCP SEAL LEAKOFF FLOW (1FR-175/1FR-176) PRZR LEVEL (1LI426/7/8)/ ERCS
<b>Standard:</b>	CHG FLOW TO REGEN HX (1FI1288) = (___ gpm) +/- 2 gpm RCP SEAL WATER INJ FLOW (1FI115A/1FI116A) = (___ gpm per seal) = +/- 0.2 gpm for each seal LTDN HX OUTL FLOW (1FI1134) = (___ gpm) +/- 2 gpm RCP SEAL LEAKOFF FLOW (1FR=175/1FR-176) = (___ gpm) rounding to 3 gpm is acceptable. PRZR LEVEL (1LI426/7/8 or ERCS) = STABLE
<b>Evaluator Cue:</b>	If asked, pressurizer level has been stable for 15 minutes.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

## RC-19S, PERFORM RCS LEAKAGE DETERMINATION USING BOARD INDICATIONS, REV. 2

<b>Performance Step:</b>	Determine the RCS Leak Rate by
<b>Critical Y (SEQ-2)</b>	Adding charging flow, seal water injection flows AND subtracting letdown flow and seal leakoff flows.
<b>Standard:</b>	RCS Leak Rate is (___ gpm + ___ gpm) – (___ gpm + ___ gpm) = ___ gpm.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** Leak rate is calculated to \_\_\_\_\_ +/- 4.4 gpm. This JPM is complete.

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

Retention: Life of Plant

Retain in: Training Record

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

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- Automatic charging pump speed has increased to compensate for a slow Pressurizer level decrease.
- Both charging pumps were placed in Manual and with increased speed to maintain Pressurizer Level steady.
- Pressurizer level, RCS temperature, and Reactor power have been stable for the last 5 minutes.
- ERCS LEAK program is unavailable.

### INITIATING CUES (IF APPLICABLE):

- You have been directed by the SS to perform a leak rate on Unit 1 using control board indications per 1C4 AOP1.

Retention: Life of Plant

Retain in: Training Record

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

## RC-19S, PERFORM RCS LEAKAGE DETERMINATION USING BOARD INDICATIONS SIMULATOR SETUP

### INSTRUCTOR GUIDE:

- Initialize the simulator to IC-10.
- Insert Malfunction **RC14 “RCS Leak” at a value of 5%**
- Insert **Annun Malf 47022:0108 to Disable** to override Hi Rad Train B alarm
- Place both charging pumps in manual and dial up speed to match ERCS Leak rate. Verify Pzr level and RCS temperature remain stable for about 5 min.
- Ensure Letdown is not diverting.
- Let run to develop recorder traces for about 5 more minutes.
- Determine leak rate from board (RCP Seal Flows plus Charging Flow minus Letdown Flow and minus RCP Seal Return Flow).
- Fill in the numbers for the standard leak rate in the JPM.
- Place the Simulator in Freeze.

<i>Relative Order</i>	<i>System or Panel Drawing</i>	<i>TYPE</i>	<i>CODE</i>	<i>Severity or Value</i>	<i>Event Trigger</i>	<i>TIMING</i>	<i>DESCRIPTION</i>
0		Malf	RC14	5			RC System Leak
0		Annun Malf	M47022:0108W	Disable			Hi Rad Train B

Retention: Life of Plant

Retain in: Training Record

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



## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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

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Validation Personnel/Date

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

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: INADVERTENT TRAIN B SAFETY INJECTION ACTUATION WHILE SHUTDOWN

JPM NUMBER: SI-13S REV. 0

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 000 030 05 01

K/A NUMBERS: E02 EA1.3

## 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: NO

TASK APPLICABILITY: SRO: ☒ RO: ☒ NLO ☐

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Bill Markham</b>	<b>03/14/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/08/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

## SI-13S, INADVERTENT TRAIN B SAFETY INJECTION WHILE SHUTDOWN, REV. 0

JPM Number: SI-13SJPM Title: Inadvertent Train B Safety Injection Actuation While Shutdown

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

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.*

**SI-13S, INADVERTENT TRAIN B SAFETY INJECTION WHILE SHUTDOWN, REV. 0****JPM BRIEFING/TURNOVER**

Use NUREG-1021, Appendix E, for JPM briefing.

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 cooldown is in progress per 1C1.3.
- Conditions have just been established to place RHR in service per section 5.6.
- Train B SI has actuated.
- I&C reports the actuation was due to a shorted test lead while connecting test equipment in the ESF racks.

**INITIATING CUES (IF APPLICABLE):**

- You are directed to respond to the inadvertent SI using 1C18 AOP2, INADVERTENT SAFETY INJECTION WHILE SHUTDOWN.

## SI-13S, INADVERTENT TRAIN B SAFETY INJECTION WHILE SHUTDOWN, REV. 0

JPM PERFORMANCE INFORMATION

Required Materials: Simulator

General References: 1C18 AOP2

Task Standards: Containment Isolation and Safety Injection are reset, and all SI and RHR pumps are off.

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.

Performance Step: Critical Y (SEQ-1)	CHECK SI - INADVERTENT - RCS pressure <1800 psig prior to SI - YES - Containment pressure <3 psig - YES - RCS subcooling >50°F _YES - RCS pressure stable or increasing - YES
Standard:	SI determined to be inadvertent and transition is NOT made to 1E-0, and Train A SI is NOT actuated.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical Y (SEQ-2)	Check if SI Pump(s) Should Be Placed in Pullout.
Standard:	Determines 12 SI pump is running and places 12 SI pump in PULLOUT.
Evaluator Note:	
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

## SI-13S, INADVERTENT TRAIN B SAFETY INJECTION WHILE SHUTDOWN, REV. 0

<b>Performance Step:</b> Critical	Check if RCP(s) should be stopped.
<b>Standard:</b>	Running RCP #1 seal D/P verified >210 psid and RCP stop NOT required.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical	Check if RCS purification flow should be stopped.
<b>Standard:</b>	Verifies purification jumper NOT in service and goes to Step 5. (Note- purification jumper is placed in service after RHR is in service per C1.3)
<b>Evaluator Cue:</b>	IF asked, reply "Purification jumper is not in service."
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical Y (SEQ-3)	Reset SI
<b>Standard:</b>	Train B SI reset pushbutton depressed and "AUTOMATIC SI RESET" aqua light 47014-0504 LIT.
<b>Evaluator Note:</b>	The examinee may depress BOTH Train A and Train B reset pushbuttons. This is acceptable.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

## SI-13S, INADVERTENT TRAIN B SAFETY INJECTION WHILE SHUTDOWN, REV. 0

**Performance Step:** Check if RHR Pump(s) Should be Stopped.  
**Critical Y (SEQ-4)**

**Standard:** Verifies RWST to 12 RHR pump MV-32085 is OPEN.  
Stops 12 RHR pump.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Check if AFW Pump(s) should be stopped.  
**Critical**

**Standard:** Verifies RCS temperature <350°F and goes to step 8.  
Note: 12 AFW pump was in service for level control prior to the SI.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Reset Containment Isolation  
**Critical**

**Standard:** Containment Isolation reset using pushbutton PB-46084 and verified by checking annunciator 47018-0505, Containment Isolation, is NOT lit.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Terminating Cues:** When Containment Isolation and Safety Injection are reset, and all SI and RHR pumps are off, this JPM is complete.

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

SI-13S, INADVERTENT TRAIN B SAFETY INJECTION WHILE SHUTDOWN, REV. 0

## SIMULATOR SETUP

### INSTRUCTOR GUIDE:

- Initialize simulator to IC-15.
- Allow ERCS to come up.
- Place 11 SI pump in pullout with the cover on the switch and a SS hold card.
- Insert malfunction RP04B Train B SI Actuation.
- Run simulator for 10 seconds then place in FREEZE until the turnover is completed.
- Provide the examinee with the turnover information.
- WHEN the examinee is ready to begin, THEN place the simulator in RUN.



## TURNOVER SHEET

### INITIAL CONDITIONS:

- Unit 1 cooldown is in progress per 1C1.3.
- Conditions have just been established to place RHR in service per section 5.6.
- Train B SI has actuated.
- I&C reports the actuation was due to a shorted test lead while connecting test equipment in the ESF racks.

### INITIATING CUES (IF APPLICABLE):

- You are directed to respond to the inadvertent SI using 1C18 AOP2, INADVERTENT SAFETY INJECTION WHILE SHUTDOWN.

Retention: Life of Plant

Retain in: Training Record

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

## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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

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Validation Personnel/Date

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Validation Personnel /Date

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Validation Personnel/Date

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: ALIGN COOLING WATER TO THE AFW PUMP SUCTION

JPM NUMBER: CD-1S REV. 7

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 061 ATI 012

K/A NUMBERS: 064 K4.01

## 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: NO

TASK APPLICABILITY: SRO: ☒ RO: ☒ NLO ☐

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Bill Markham</b>	<b>03/14/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/08/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

Retention: Life of Plant

Retain in: Training Record

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

## CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7

JPM Number: CD-1SJPM Title: ALIGN COOLING WATER TO THE AFW PUMP SUCTION

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

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.*

Retention: Life of Plant

Retain in: Training Record

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

**CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7****JPM BRIEFING/TURNOVER**

Use NUREG-1021, Appendix E, for JPM Briefing.

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 was at 100% power with 11 TDAFWP Out of Service.
- A Safety Injection occurred.
- Water treatment is OUT OF SERVICE.
- During the transient caused by the SI, water-hammer has DAMAGED the outlet of the main condenser hotwell to the condensate pumps thus draining the hotwell and continuing the draining of the Condensate Storage Tanks.
- The auto makeup valve to the hotwell also was DAMAGED and is failed about 50% open.

**INITIATING CUES (IF APPLICABLE):**

- The immediate actions of 1E-0 are complete.
- 47010-0106, Condensate Storage Tank LO LO LVL, is in alarm.
- The SS directs you, the extra RO, to respond to the alarm.

## CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7

**JPM PERFORMANCE INFORMATION**

**Required Materials:** Consumable copy of C28.1 AOP2

**General References:** C28.1 AOP2, Loss of Condensate Supply to AFW Pump Suction

**Task Standards:** IAW C28.1 AOP2, Cooling water is lined up to 11 or 12 AFW pump.

**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>Critical (SEQ-1)</b>	Respond with 47010-0106, Condensate Storage Tank LO LO LVL. Condensate Storage Tank Level should be less than 6’ and examinee should refer to C28.1 AOP2.
<b>Standard:</b>	Examinee goes to C28.1 AOP2.
<b>Evaluator Note:</b>	<b>If asked, tell examinee that you will implement Technical Specifications for low tank level.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

## CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7

<b>Performance Step: Critical (SEQ-1)</b>	<u>IF</u> Water Treatment is available, <u>THEN</u> perform the following: 1. <b>Place</b> water treatment in service per C32.
<b>Standard:</b>	Examinee does not perform steps. The turnover sheet states that water treatment is not available.
<b>Evaluator Note:</b>	<b>These steps should not be attempted based on initial conditions for JPM, remainder of step 2.4.1 is N/A'd.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical (SEQ-1)</b>	<u>IF</u> a condensate pump is running, <u>THEN</u> condensate can be transferred from the condenser to the CST:
<b>Standard:</b>	Does not perform steps based on initial turnover of CST level and condenser hotwell system.
<b>Evaluator Note:</b>	<b>These steps should not be attempted based on initial conditions for JPM, remainder of step 2.4.2 is N/A'd.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical (SEQ-1)</b>	<u>IF</u> the condenser spray system is available, <u>THEN</u> condensate can be transferred from the condenser hot well to the CST. The line up is as follows:
<b>Standard:</b>	Does not perform steps based on initial turnover of CST level and condenser hotwell system.
<b>Evaluator Note:</b>	<b>These steps should not be attempted based on initial conditions for JPM, remainder of step 2.4.3 is N/A'd.</b>
<b>Evaluator Cue:</b>	<b>If asked, have the turbine building operator report that the condenser spray pump is cavitating.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

## CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7

**Performance Step:** IE sufficient inventory is available in an ADT Monitor Tank, THEN transfer to the  
**Critical (SEQ-1)** CST:

**Standard:** Calls the Auxiliary Building Operator who informs him that the ADT monitor tanks are empty.

**Evaluator Cue:** **If asked, as the Auxiliary Building Operator report “the ADT monitor tanks are empty.”**

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

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

**Performance Step:** IE all other actions fail, THEN as a last resort **perform**:  
**Critical Y (SEQ-1)** A. **OPEN** the cooling water supply to the desired AFW pump suction

**Standard:** OPENS MV-32027, 12 MD AFW PMP SUCT CL SPLY

**Evaluator Note:** **11 TDAFWP is Out of Service. The candidate must use 12 MDAFWP related valves. Valve stroke time is approximately 1 minute.**

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

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

**Performance Step:** IE all other actions fail, THEN as a last resort **perform**:  
**Critical Y (SEQ-2)** B. **CLOSE** the CST supply to the desired AFW pump suction

**Standard:** CLOSES MV-32335, 12 MD AFW PMP SUCT FROM CST MV

**Evaluator Note:** **11 TDAFWP is Out of Service. The candidate must use 12 MDAFWP related valves. Valve stroke time is approximately 1 minute.**

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

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



## CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7

<b>Performance Step: Critical (SEQ-3)</b>	<u>IF</u> all other actions fail, <u>THEN</u> as a last resort <b>perform</b> : 2.4.5.C. <b>CLOSE</b> the associated AFWP suction vent valve
<b>Standard:</b>	Directs the closing of CL-115-4, 12 AFW PMP CLG WTR SPLY DNSTRM VENT
<b>Evaluator Cue:</b>	<b>If asked to close the valves, report as the TBO “CL-115-4 is closed.”</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical (SEQ-3)</b>	<b>Transfer</b> the associated AFP pump recirc flow to cooling water 2.4.6.A. <b>OPEN</b> the AFW pump recirc valves to cooling water
<b>Standard:</b>	Directs the opening of AF-32-4, 12 AFW PMP RECIRC TO UNIT 1 CLG WTR HDR
<b>Evaluator Cue:</b>	<b>If asked to open the valves, report as the TBO “AF-32-4 is open.”</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical (SEQ-3)</b>	<b>Transfer</b> the associated AFP pump recirc flow to cooling water 2.4.6.B. <b>CLOSE</b> the associated AFW pump recirc valves to the CST
<b>Standard:</b>	Directs the closing of AF-33-2, 12 AFW PMP RECIRC TO 11 CST
<b>Evaluator Cue:</b>	<b>If asked to close the valves, report as the TBO “AF-33-2 is closed.”</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical (SEQ-3)</b>	<b>Observe</b> the running AFW pump discharge pressure and flow. <u>IF</u> inadequate (less than 850 psig and 180 gpm), <u>THEN</u> <b>check</b> the Cooling Water System to see if non-essential loads may be shed
<b>Standard:</b>	Observes system parameters and determines they are adequate.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7

**Terminating Cues:** 12 AFW Pump is running and supplying cooling water flow to the steam generators. This JPM is complete.

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

Retention: Life of Plant

Retain in: Training Record

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

## CD-1S, ALIGN COOLING WATER TO THE AFW PUMP SUCTION, REV. 7

**SIMULATOR SETUP****Instructor Actions Prior to JPM Administration:**

- Initialize the simulator to IC-10
- Insert the following

Relative Order	Type	Code	Severity/Value	Event Trigger	TITLE
0	AO OVRD	AO-4122302	14%		11 CST Level
0	AO OVRD	AO-4122303	14%		21/22 CST Level
0	AO OVRD	AO-4122301	0%		Condenser Hotwell Level
0	Ann OVRD	47009:0603W	Cry Wolf		Cond Storage tnk Lo level
0	Ann OVRD	47009:0601W	Cry Wolf		1A Cond Hotwell lo level
0	Ann OVRD	47008:0606W	Cry Wolf		Turbine Room Sump Hi Level
0	Ann OVRD	47010:0106W	Cry Wolf		Condensate Storage Tank Lo/Lo Level
0	Ann OVRD	47010:0505W	Cry Wolf		11 TD AFWP Lube Oil Lo Press

- Place 11 TDAFWP in PULLOUT and tag its handswitch and selector switch.
- Open CV-31121 to 50% "Cond M-U to A CDSR" 4308301
- Insert manual SI
- Silence annunciators
- Perform E-0 Immediate Actions
- Freeze after Immediate Actions are complete.
- Give initial conditions
- Take the Simulator to RUN.

Retention: Life of Plant

Retain in: Training Record

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

## TURNOVER SHEET

**INITIAL CONDITIONS:**

- Unit 1 was at 100% power with 11 TDAFWP Out of Service.
- A Safety Injection occurred.
- Water treatment is OUT OF SERVICE.
- During the transient caused by the SI, water-hammer has DAMAGED the outlet of the main condenser hotwell to the condensate pumps thus draining the hotwell and continuing the draining of the Condensate Storage Tanks.
- The auto makeup valve to the hotwell also was DAMAGED and is failed about 50% open.

**INITIATING CUES (IF APPLICABLE):**

- The immediate actions of 1E-0 are complete.
- 47010-0106, Condensate Storage Tank LO LO LVL, is in alarm.
- The SS directs you, the extra RO, to respond to the alarm.

Retention: Life of Plant

Retain in: Training Record

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

## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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

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Validation Personnel/Date

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:** CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES

**JPM NUMBER:** EO-31SF-3 **REV.** 2

**RELATED PRA INFORMATION:** NONE

**TASK NUMBERS / TASK TITLE(S):** CRO 026 005 01 01

**K/A NUMBERS:** 026 A4.01

**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: YES

**TASK APPLICABILITY:** SRO: ☒ RO: ☒ NLO ☐

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Bill Markham</b>	<b>03/14/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/08/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

Retention: Life of Plant

Retain in: Training Record

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

## EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2

JPM Number: EO-31SF-3JPM Title: CONTAINMENT SPRAY ACTUATION FAILURE.

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

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.*

Retention: Life of Plant

Retain in: Training Record

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

**EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2****JPM BRIEFING/TURNOVER**

Use NUREG-1021, Appendix E, for JPM briefing.

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 was operating at 100% power with no equipment out of service.
- Unit 1 has just experienced a Large Break LOCA.
- 1E-0, Reactor Trip or Safety Injection, is in progress.

**INITIATING CUES (IF APPLICABLE):**

- The Unit 1 SS directs you to perform Attachment L.



**EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2****JPM PERFORMANCE INFORMATION****Required Materials:** Simulator**General References:** 1E-0 Attachment L SI Alignment Verification**Task Standards:** Manually actuate Containment Spray system and manually close 12 MSIV.**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.

**Performance Step:** Verify Safeguards Component Alignment**Critical**

- Both Trains of SI Actuated
  - Both RHR Pumps running OR
  - Both SI Pumps Running

**Standard:** Verifies either both SI pumps or both RHR pumps Running**Performance:** **SATISFACTORY** ☐ **UNSATISFACTORY** ☐**Comments:** \_\_\_\_\_**Performance Step:** SI NOT READY lights – NOT LIT**Critical****Standard:** Verifies SI NOT READY lights are not lit**Performance:** **SATISFACTORY** ☐ **UNSATISFACTORY** ☐**Comments:** \_\_\_\_\_

Retention: Life of Plant

Retain in: Training Record

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

**EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2**

**Performance Step:** SI ACTIVE lights – lit for plant conditions  
**Critical Y (SEQ-1)**

**Standard:** Verifies SI ACTIVE Lights are LIT

**Evaluator Note:** The examinee may manually actuate Containment Spray since Containment Pressure is still greater than 23 psig. A later step specifically checks if a Containment Spray actuation is required. The Critical Task is satisfied if Containment Spray is actuated prior to JPM completion.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Containment Isolation lights – lit for plant conditions.  
**Critical**

**Standard:** Verifies CI lights are lit.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Category I doors - CLOSED  
**Critical**

**Standard:** Verifies Category I doors are closed.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

Retention: Life of Plant

Retain in: Training Record

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

**EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2**

<b>Performance Step:</b> <b>Critical</b>	Check Category I Special Vent Zone Report – NO openings requiring closure within 6 minutes
<b>Standard:</b>	Checks current report. There are no openings.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical</b>	CLOSE MV-32115, 122 SFP HX Inlet Header MV B
<b>Standard:</b>	Positions CS-46064 to close position. Green light ON.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical</b>	Check Loop A and Loop B Cooling Water Pressures greater than 65 psig
<b>Standard:</b>	Verifies CL Header pressures >65psig.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical</b>	Verify Plant Announcements Complete.
<b>Standard:</b>	Announces Unit 1 Reactor Trip & Safety Injection Pages Shift Manager & SEC to report to the Control Room
<b>Evaluator Cue:</b>	<b>If asked, report announcements have been made.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

**EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2****Performance Step:**  
**Critical Y (SEQ-1)**

Check if MSIVs and bypasses - closed.

- IF OPEN, then check if MSIV isolation is required.
- IF required, THEN CLOSE MSIVs and bypass valves

**Standard:**

Determines that B Train MSIV has failed to CLOSE. CLOSES B Train MSIV and verifies that A Train MSIV is closed.

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

---

**Performance Step:**  
**Critical**

Containment instrument air valves (CV-31740 and CV-31741) – CLOSED

- IF containment pressure >17psig, THEN Close instrument air valves

**Standard:**

Verifies CV-31740 and CV-31741 are CLOSED.

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

---

**Performance Step:**  
**Critical**

Verify SI Flow

**Standard:**

Checks RCS pressure &lt; 2100psig and verifies SI flow

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

---

**Performance Step:**  
**Critical**

Verify RHR Flow

**Standard:**

Checks RCS pressure &lt; 150psig and verifies RHR flow

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

---

Retention: Life of Plant

Retain in: Training Record

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

**EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2**

<b>Performance Step:</b>	Check Containment Pressure has remained below 23psig.
<b>Critical Y (SEQ-1)</b>	<ul style="list-style-type: none"> <li>• IF not, THEN verify CS actuated.</li> </ul>
<b>Standard:</b>	Actuates containment spray by turning CS-46002 and CS-46003 to ACTUATE simultaneously. Verifies pumps start and valves align properly.
<b>Evaluator Note:</b>	<b>IF the CS system was actuated earlier, THEN the critical step is satisfied.</b>

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

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

**Terminating Cues:**      When the candidate actuates Containment Spray AND closes the B Train MSIV, inform the candidate that, "this JPM is complete." IF NOT, terminate the JPM when Attachment L is reported to be complete.

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

Retention: Life of Plant

Retain in: Training Record

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

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Unit 1 was operating at 100% power with no equipment out of service.
- Unit 1 has just experienced a large break LOCA.
- 1E-0, Reactor Trip or Safety Injection, is in progress.

### INITIATING CUES (IF APPLICABLE):

- The Unit 1 SS directs you to perform Attachment L.

Retention: Life of Plant

Retain in: Training Record

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

## EO-31SF-3, CONTAINMENT SPRAY AND MSIV ACTUATION FAILURES, REV. 2

## Simulator Setup

## Instructions:

- Setup the simulator to IC-10 per normal checklist.
- Place the simulator in RUN.
- Enter the Large Break LOCA (**Relative Order 1, Trigger 1**).
- Wait ~ 30 seconds, AND THEN trip the RCP's.
- WHEN the CI lights are all LIT (with exceptions), THEN **acknowledge** alarms and **place** the simulator in FREEZE.
- Close the A Train MSIV.
- Close the IA Containment Isolation Valves.
- Provide the examinee with the turnover information.
- Verify recorders are ON
- WHEN the examinee is ready to begin, THEN **place** the simulator in RUN.
- **When the Candidate actuates Containment Spray, then DELETE CS04, (Relative Order 2)**

<i>Relative Order</i>	<i>Type</i>	<i>Code</i>	<i>Severity or Value</i>	<i>Timing</i>	<i>Event Trigger</i>	<i>Description</i>
1	Malfunction	RC07A	100		1	Cold Leg LOCA
1	Malfunction	CS04			1	Failure of SI to CS signal to actuate
	Malfunction	RP06			1	Failure of MSIV's to isolate.
2	Malfunction	CS04	DELETE			Failure of SI to CS signal to actuate

Retention: Life of Plant

Retain in: Training Record

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

## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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

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Validation Personnel/Date

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:** RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP

**JPM NUMBER:** EG-15S **REV.** 0

**RELATED PRA INFORMATION:** NONE

**TASK NUMBERS / TASK TITLE(S):** CRO 062 ATI 023

**K/A NUMBERS:** 062 A2.05

## APPLICABLE METHOD OF TESTING:

Discussion: ☐ Simulate/walkthrough: ☐ Perform: ☒

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

Time for Completion: 15 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>	<b>Bill Markham</b>	<b>03/12/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/08/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

Retention: Life of Plant

Retain in: Training Record

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

**EG-15S, RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP, REV. 0**JPM Number: EG-15SJPM Title: RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP

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

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.*

Retention: Life of Plant

Retain in: Training Record

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

**EG-15S, RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP, REV. 0****JPM BRIEFING/TURNOVER**

Use NUREG-1021, Appendix E, for JPM briefing.

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 Reactor Trip
- The immediate actions of 1E-0, Reactor Trip or Safety Injection have just been completed.

**INITIATING CUES (IF APPLICABLE):**

- The SS directs you to restore power to bus 15 per 1C20.5 AOP1, REENERGIZING 4.16KV BUS 15, beginning with step 2.4.5.

Retention: Life of Plant

Retain in: Training Record

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

## EG-15S, RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP, REV. 0

JPM PERFORMANCE INFORMATION

**Required Materials:** 1C20.5 AOP1  
1E-0  
**General References:** 1C20.5 AOP1  
1E-0  
**Task Standards:** Bus 15 is reenergized from CT 11 source per 1C20.5 AOP1

**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.

**Performance Step:** 2.4.5 Place CS-46932 BUS 15 VOLTAGE RESTORATION SEL SW, in  
**Critical Y (SEQ-1)** “MANUAL.”

**Standard:** CS-46932 is in MANUAL

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** 2.4.6 Refer to 1C20.5 for lockout resetting requirements.  
**Critical**

**Standard:** By absence of alarms, Bus 15 is determined NOT to be locked out.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

Retention: Life of Plant

Retain in: Training Record

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

**EG-15S, RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP, REV. 0**

<b>Performance Step: Critical Y (SEQ-2)</b>	<b>2.4.8 Check the following source voltages and use the first acceptable supply in the order listed: 1RY, CT11.</b>
<b>Standard:</b>	The examinee determines that 1RY is deenergized, and CT11 should be used. The examinee should then go to Step 2.4.10.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical Y (SEQ-3)</b>	<b>2.4.10A Place CS-46951, BKR 15-3 MAN/AUTO CLOSURE SEL SW, in MANUAL.</b>
<b>Standard:</b>	CS-46951 in MANUAL.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical Y (SEQ-3)</b>	<b>2.4.10.B Place CS-46948, BKR 15-2 MAN/AUTO CLOSURE SEL SW, in MANUAL.</b>
<b>Standard:</b>	CS-46948 in MANUAL.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical Y (SEQ-3)</b>	<b>2.4.10.C Place CS-46909, BKR 15-7 MAN/AUTO CLOSURE SEL SW, in MANUAL.</b>
<b>Standard:</b>	CS-46909 in MANUAL.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

**EG-15S, RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP, REV. 0**

**Performance Step:** 2.4.10.D Place the following control switches in PULLOUT.  
**Critical Y (SEQ-3)**

**Standard:** CS-46036, 11 CC PUMP in PULLOUT  
CS-46008, 11 CNTMT SPRAY PUMP in PULLOUT  
CS-46178, 11 SI PUMP in PULLOUT  
CS-46184, 11 RHR PUMP in PULLOUT  
CS-46905, BKR 15-6 BUS 15 FEED TO 112M XFMR in PULLOUT  
CS-46956, BKR 15-11 BUS 15 FEED TO 111M XFMR in PULLOUT

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** 2.4.10.E Place CS-46906, BUS 15 SYNCHROSCOPE SEL SW, to the "CT11"  
**Critical Y (SEQ-3)** position.

**Standard:** CS-46906 in the "CT11" position.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** 2.4.10.F Place CS-46955, BKR 15-7 BUS 15 SOURCE FROM BUS CT11, to  
**Critical Y (SEQ-4)** CLOSE.

**Standard:** CS-46955 is closed.

**Evaluator Note:** This step energized Bus 15.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**EG-15S, RESTORE POWER TO BUS 15 FOLLOWING A REACTOR TRIP, REV. 0**

<b>Performance Step:</b>	<b>2.4.10.G Verify 4091801, BUS 15 4160 VOLTS, indicates between 4000-4400 volts.</b>
<b>Critical</b>	
<b>Standard:</b>	<b>Bus 15 is determined to be between 4000-4400 volts.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>Place CS-46906, BUS 15 SYNCHROSCOPE SWL SW, to OFF</b>
<b>Critical</b>	
<b>Standard:</b>	<b>CS-46906 is in OFF.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**Terminating Cues:** Bus 15 is reenergized from CT11. This JPM is complete.

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

Retention: Life of Plant

Retain in: Training Record

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

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Unit 1 has had a Reactor Trip.
- You are the Extra Reactor Operator.
- The immediate actions of 1E-0, Reactor Trip or Safety Injection have just been completed.

### INITIATING CUES (IF APPLICABLE):

- The SS directs you to restore power to bus 15 per 1C20.5 AOP1, REENERGIZING 4.16KV BUS 15, beginning with step 2.4.5.

Retention: Life of Plant

Retain in: Training Record

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



### **SIMULATOR SETUP**

- **Reset Simulator to IC-10**
- **Trip the Reactor**
- **Insert MALF ED18, Fault in 1R Transformer**
- **Insert MALF DG01A, Loss of D1 Diesel Generator**
- **Insert DI-46909A – AUTO – OFF – CT 11 AUTO SWITCH POSITION.**
- **Sign off the simulator copy of 1C20.5 AOP1 steps 2.4.1 – 2.4.4.**
- **Freeze simulator until turnover is complete.**

Retention: Life of Plant

Retain in: Training Record

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

## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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

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Validation Personnel/Date

Retention: Life of Plant

Retain in: Training Record

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

	<b>JOB PERFORMANCE MEASURE (JPM)</b>
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**SITE:** PRAIRIE ISLAND  
**JPM TITLE:** PRESSURE INSTRUMENT PT-485 FAILS LOW  
**JPM NUMBER:** RD-5S **REV.** 0  
**RELATED PRA INFORMATION:** NONE  
**TASK NUMBERS / TASK TITLE(S):** CRO 045 ATI 005  
**K/A NUMBERS:** 2.1.23

**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: NO

**TASK APPLICABILITY:** SRO: ☒ RO: ☒ NLO ☐

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Bill Markham</b>	<b>03/14/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/08/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

## RD-5S, PRESSURE INSTRUMENT PT-485 FAILS LOW, REV. 0

JPM Number: RD-5SJPM Title: PRESSURE INSTRUMENT PT-485 FAILS LOW

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

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.*

Retention: Life of Plant

Retain in: Training Record

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

**RD-5S, PRESSURE INSTRUMENT PT-485 FAILS LOW, REV. 0****JPM BRIEFING/TURNOVER**

Use NUREG-1021, Appendix E, for JPM briefing.

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.
- No equipment is out of service.
- You are the Reactor Operator.

**INITIATING CUES:**

- Respond to plant conditions.

Retention: Life of Plant

Retain in: Training Record

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

## RD-5S, PRESSURE INSTRUMENT PT-485 FAILS LOW, REV. 0

**JPM PERFORMANCE INFORMATION**

**Required Materials:** 1C51.2, Instrument Failure Guide

**General References:** 1C51.2, Instrument Failure Guide

**Task Standards:** Place Rod Control in “MANUAL” and respond per 1C51.2, for PT-485 fails low.

**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.

**Performance Step:**  
**Critical Y (SEQ-1)**

**Respond to PT-485 failing low by:**

- Diagnosing failure using one or more of the following:
  - 1PI-485 at 0 psig
  - 47014-0306, AUTO ROD WITHDRAWAL BLOCKED, lit
  - Control rods stepping in.
  - 47013-0305, AUCTIONEERED TAVG-TREF DEVIATION, lit
  - 47011-0405, FW CONTROL SYSTEM TROUBLE, lit

**Standard:**

Diagnose PT-485 failing LOW, and as a plant stabilizing action, place Rod Control in MANUAL to stop rod motion.

**Performance:**

**SATISFACTORY** ☐ **UNSATISFACTORY** ☐

**Comments:**

\_\_\_\_\_

## RD-5S, PRESSURE INSTRUMENT PT-485 FAILS LOW, REV. 0

<b>Performance Step:</b> <b>Critical</b>	<b>47013-0305 - AUCTIONEERED TAVG-TREF DEVIATION</b>
<b>Standard:</b>	If due to channel failure, refer to C51.2, Instrument Failure Guide. Examinee will go to 1C51.2.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical Y (SEQ-1)</b>	<b>1C51.2, Step 1: Place rod control in MANUAL and control Tave at value appropriate for power level.</b>
<b>Standard:</b>	Rod Control should have already been placed in MANUAL as a plant stabilizing action. Tave should be controlled at the appropriate value for the current power level. 100% power is 560°F
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical Y (SEQ-2)</b>	<b>1C51.2, Step 2: Place one steam dump interlock bypass switch to "OFF"</b>
<b>Standard:</b>	One steam dump interlock bypass switch is in "OFF"
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical Y (SEQ-2)</b>	<b>Step 3: Place steam dump in Steam Pressure mode and verify valves closed.</b>
<b>Standard:</b>	Steam dumps are in steam pressure mode with all valves closed.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

## RD-5S, PRESSURE INSTRUMENT PT-485 FAILS LOW, REV. 0

**Performance Step:** Step 4: Verify zero output on steam dump controller.  
**Critical Y (SEQ-3)**

**Standard:** Zero output is verified on steam dump controller.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Step 5: Return steam dump interlock bypass switch to ON.  
**Critical Y (SEQ-4)**

**Standard:** Switch is placed in ON. The student should verify by check of valve position and demand that steam dump is back in automatic with valves closed.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Step 6: Verify SG level control operating properly in automatic.  
**Critical**

**Standard:** SG level control is verified to operating properly in automatic.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Terminating Cues:** After student has placed Rod Control in Manual and shifted steam dumps to the Steam Pressure mode, this JPM is complete.

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

Retention: Life of Plant

Retain in: Training Record

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



RD-5S, PRESSURE INSTRUMENT PT-485 FAILS LOW, REV. 0

## **SIMULATOR SETUP**

- Reset to IC-10.
- Insert SYS OVRD RX226 to 0% on Relative Order 1, Trigger 1.
- When examinee takes the duty, insert Trigger 1.

Retention: Life of Plant

Retain in: Training Record

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

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- No equipment is out of service.
- You are the Reactor Operator.

### INITIATING CUES:

- Respond to plant conditions.

Retention: Life of Plant

Retain in: Training Record

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

## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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.

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Validation Personnel /Date

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Validation Personnel/Date

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:

**JPM TITLE:** START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM

**JPM NUMBER:** RM-3SF-1 **REV.** 4

**RELATED PRA INFORMATION:** NONE

**TASK NUMBERS / TASK TITLE(S):** CRO 073 002 01 01

**K/A NUMBERS:** 034 A2.01

## 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: YES

**TASK APPLICABILITY:** SRO: ☒ RO: ☒ NLO ☐

Additional site-specific signatures may be added as desired.

<b>Developed by:</b>	<b>Bill Markham</b>	<b>05/18/07</b>
	Developer	Date
<b>Validated by:</b>	<b>Travis Ouret</b>	<b>05/28/07</b>
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
<b>Approved by:</b>		
	Training Supervisor	Date

Retention: Life of Plant

Retain in: Training Record

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

**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4****JPM Number:** RM-3SF-1**JPM Title:** START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE  
CONTROL ROOM**Examinee:** \_\_\_\_\_**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.*

Retention: Life of Plant

Retain in: Training Record

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

**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4****JPM BRIEFING/TURNOVER**

Use NUREG-1021, Appendix E, for JPM Briefing.

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:**

- Both units are at 100% power.
- Fuel sipping was occurring in the SFP.
- A fuel element was dropped.
- The portable radiation monitor is alarming (VAMP)
- The SFP has been evacuated.
- The SFP Supervisor has just notified the Control Room.

**INITIATING CUES (IF APPLICABLE):**

- You are directed to start the SFP Special Ventilation System from the Control Room per D5.1 AOP1, Step 2.4.2.C

**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4****JPM PERFORMANCE INFORMATION****Required Materials:** Simulator, Jumper Cable**General References:** D5.1 AOP1**Task Standards:** Spent Fuel Pool Special Ventilation System (Both Trains) started from the Control Room.**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>Critical</b>	<b>Step 2.4.2.C Verify proper actuation of SFP Special Ventilation.</b>
<b>Standard:</b>	<b>Examinee shall verify SFP Special Ventilation is NOT in service.</b>
<b>Performance:</b>	<b>SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/></b>
<b>Comments:</b>	_____

**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4**

<b>Performance Step:</b> <b>Critical</b>	<b>Step 2.4.2.C.1a IF the SFP Special Ventilation is not running, then actuate 121 SFPSVS from the Train A rad monitor rack by performing the following:</b>
	Install a trip cable between the test jack on R-25 to the current trip test input jack located near the bottom of the rack.
<b>Standard:</b>	Cable is installed between the test jack on R-25 to the current trip test input jack located near bottom of the rack.
<b>Evaluator Note:</b>	47022-0208, RAD MONITOR DOWNSCALE FAILURE ALARM, will alarm. This is expected.
<b>Evaluator Cue:</b>	Inform the examinee that another operator will respond to the alarm
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical</b>	<b>Step 2.4.2.C.1.(b) Raise the R-25 test signal by turning the current trip test input adjustment clockwise until the R-25 ESF EQUIP ALARM is received.</b>
<b>Standard:</b>	Examinee will determine that the 121 SFPSVS did NOT start. The examinee should continue with the procedure and then start the 122 SFPSVS.
<b>Evaluator Note:</b>	The red LED will NOT light and the 121 SFPSVS will NOT start. R-25 Indication will not change with test knob operation.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical</b>	<b>Verify 121 SFPSVS is running.</b>
<b>Standard:</b>	121 SFPSVS is determined NOT to be running.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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



**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4**

<b>Performance Step:</b> <b>Critical</b>	Reduce the R-25 test signal by turning the current trip test input adjustment knob counterclockwise to obtain a low value.
<b>Standard:</b>	Test signal is reduced to a low level.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical</b>	Remove the trip cable
<b>Standard:</b>	Trip cable is removed.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> <b>Critical</b>	Depress the ESF EQUIP push-button on R-25 and verify that both the ESF EQUIP and HI ALARM LED's are extinguished.
<b>Standard:</b>	Push button is depressed and both LED's are extinguished.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4**

<b>Performance Step: Critical Y (SEQ-1)</b>	<b>Actuate 122 SFPSVS from the Train B Radiation Monitor rack by performing the following:</b>
	Install a trip cable between the test jack on R-31 to the current trip test input jack located near the bottom of the rack.
<b>Standard:</b>	Trip cable is installed between the test jack on R-31 to the current trip test input jack located near the bottom of the rack.
<b>Evaluator Note:</b>	This step and the next step will actuate 122 SFPSVS. 47022-0208, RAD MONITOR DOWNSCALE FAILURE ALARM, will alarm. This is an expected alarm.
<b>Evaluator Cue:</b>	Inform the examinee that another operator will respond to the alarm.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical Y (SEQ-2)</b>	<b>Raise the R-31 test signal by turning the current trip test input adjustment knob clockwise until the R-31 ESF EQUIP ALARM is received.</b>
<b>Standard:</b>	Test signal is raised. 47022-0108, HI RAD TRAIN B, alarms. This is an expected alarm.
<b>Evaluator Cue:</b>	Inform the examinee that another operator will respond to the alarm.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b>	<b>Verify that 122 SFPSVS is running.</b>
<b>Standard:</b>	Examinee verifies that 122 SPENT FUEL SPECIAL AND IN SVC PRG EXHST FAN, is running.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

Retention: Life of Plant

Retain in: Training Record

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

**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4**

**Performance Step:** Reduce the R-31 test signal by turning the current trip test input adjustment knob counterclockwise to obtain a low value.  
**Critical**

**Standard:** The test input adjustment knob on R-31 is turned counterclockwise to obtain a low value.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Remove the trip cable.  
**Critical**

**Standard:** Trip cable is removed.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Performance Step:** Depress the ESF EQUIP/RESET pushbutton on R-31 and verify that both the ESF EQUIP and HI ALARM LED's are extinguished.  
**Critical**

**Standard:** Push button is depressed and both LED's are extinguished.

**Performance:** SATISFACTORY ☐ UNSATISFACTORY ☐

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

**Terminating Cues:** When 122 SFPSVS is running. This JPM is complete.

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

Retention: Life of Plant

Retain in: Training Record

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

**RM-3SF-1, START SPENT FUEL POOL SPECIAL VENTILATION SYSTEM FROM THE CONTROL ROOM,  
REV. 4**

## **SIMULATOR SETUP**

- Initialize the Simulator to IC-10 and place in freeze.
- Insert the malfunctions to cause 121 SFPSVS not to actuate.
- Ensure that both R-25 and R-31 current trip test input knobs are fully counterclockwise.
- Insert Analog Input A1-RACK 11 – TRIP TEST with a value of 0.

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Both units are at 100% power.
- Fuel sipping was occurring in the SFP.
- A fuel element was dropped.
- The portable radiation monitor is alarming (VAMP)
- The SFP has been evacuated.
- The SFP Supervisor has just notified the Control Room.

### INITIATING CUES (IF APPLICABLE):

- You are directed to start the SFP Special Ventilation System from the Control Room per D5.1 AOP1, Step 2.4.2.C

Retention: Life of Plant

Retain in: Training Record

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

## 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 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. Do the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<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"/>	
6. If the task is NOT time critical, 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? Not applicable to Non-Licensed Operators	<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? Not applicable to Non-Licensed Operators	<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"/>	
11. Have all special tools and equipment needed to perform the task been identified?	<input type="checkbox"/>	<input type="checkbox"/>	
12. Are all references identified, current, and accurate?	<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"/>	

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.

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Validation Personnel /Date

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Retention: Life of Plant

Retain in: Training Record

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