

Facility: **Prairie Island**  
 Exam Level (circle one): **RO** / SRO(I) / SRO(U)

Date of Examination: **09/08/2003**  
 Operating Test No.: \_\_\_\_\_

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)

System / JPM Title	Type Code*	Safety Function
a) VC-12SF-1, Emergency Borate The RCS (RO only)	MSA	1
b) SI-11S, Transfer SI To Recirculation Mode	MS	2
c) EO-30SF-1, Respond To Stuck Open Pressurizer Spray Valve	NSAL	3
d) EO-21SF-1, RCS Bleed And Feed During Response To Loss Of Secondary Heat Sink With A PORV Failing To Open	DSA	4a
e) ARS-1, Respond To Condenser High Pressure	NSL	4b
f) EO-29SF-1, Response To Containment Isolation Failure	NSA	5
g) PS-6S, Respond To A Pressurizer Level Channel Failed High	NSL	7
h) RC-15S, Initial Response To RCS High Activity	DS	9

In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)

i) F5-9, F5 Appendix B, Attachment C – Unit 1 RO Actions	D	8
j) EG-11F, Perform Local Emergency Start Of A Diesel Generator	NA	6
k) VC-16, Borate The RCS From Outside The Control Room: Unit 1	DR	1

\* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow- Power, (R)CA

Facility: **Prairie Island**  
 Exam Level (circle one): RO / **SRO(I)** / SRO(U)

Date of Examination: **09/08/2003**  
 Operating Test No.:   A  

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)

System / JPM Title	Type Code*	Safety Function
a) <b>Not Administered to SRO-I</b>	MSA	1
b) SI-11S, Transfer SI To Recirculation Mode	MS	2
c) EO-30SF-1, Respond To Stuck Open Pressurizer Spray Valve	NSAL	3
d) EO-21SF-1, RCS Bleed And Feed During Response To Loss Of Secondary Heat Sink With A PORV Failing To Open	DSA	4a
e) ARS-1, Respond To Condenser High Pressure	NSL	4b
f) EO-29SF-1, Response To Containment Isolation Failure	NSA	5
g) PS-6S, Respond To A Pressurizer Level Channel Failed High	NSL	7
h) RC-15S, Initial Response To RCS High Activity	DS	9

In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)

i) F5-9, F5 Appendix B, Attachment C – Unit 1 RO Actions	D	8
j) EG-11F, Perform Local Emergency Start Of A Diesel Generator	NA	6
k) VC-16, Borate The RCS From Outside The Control Room: Unit 1	DR	1

\* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow- Power, (R)CA

Facility: **Prairie Island**  
 Exam Level (circle one): RO / **SRO(I)** / SRO(U)

Date of Examination: **09/08/2003**  
 Operating Test No.:     B    

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)

System / JPM Title	Type Code*	Safety Function
a) <b>Not Administered to SRO-I</b>	MSA	1
b) SI-11S, Transfer SI To Recirculation Mode	MS	2
c) EO-26SF-1, Isolate a Ruptured Steam Generator (2001)	MSA	3
d) EO-21SF-1, RCS Bleed And Feed During Response To Loss Of Secondary Heat Sink With A PORV Failing To Open	DSA	4a
e) ARS-1, Respond To Condenser High Pressure	NSL	4b
f) EO-29SF-1, Response To Containment Isolation Failure	NSA	5
g) PS-6S, Respond To A Pressurizer Level Channel Failed High	NSL	7
h) RC-15S, Initial Response To RCS High Activity	DS	9

In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)

i) F5-9, F5 Appendix B, Attachment C – Unit 1 RO Actions	D	8
j) EG-11F, Perform Local Emergency Start Of A Diesel Generator	NA	6
k) VC-16, Borate The RCS From Outside The Control Room: Unit 1	DR	1

\* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow- Power, (R)CA

Facility: **Prairie Island**  
 Exam Level (circle one): RO / SRO(I) / **SRO(U)**

Date of Examination: **09/08/2003**  
 Operating Test No.: \_\_\_\_\_

Control Room Systems (8 for RO; 7 for SRO-I; 2 or 3 for SRO-U)

System / JPM Title	Type Code*	Safety Function
a) <b>Not Administered to SRO-U</b>	MSA	1
b) <b>Not Administered to SRO-U</b>	MSL	2
c) EO-30SF-1, Respond To Stuck Open Pressurizer Spray Valve	NSA	3
d) EO-21SF-1, RCS Bleed And Feed During Response To Loss Of Secondary Heat Sink With A PORV Failing To Open	DSA	4a
e) <b>Not Administered to SRO-U</b>	NS	4b
f) EO-29SF-1, Response To Containment Isolation Failure	NSA	5
g) <b>Not Administered to SRO-U</b>	NS	7
h) <b>Not Administered to SRO-U</b>	DS	9
In-Plant Systems (3 for RO; 3 for SRO-I; 3 or 2 for SRO-U)		
i) F5-9, F5 Appendix B, Attachment C – Unit 1 RO Actions	D	8
j) <b>Not Administered to SRO-U</b>	NA	6
k) VC-16, Borate The RCS From Outside The Control Room: Unit 1	DR	1
* Type Codes: (D)irect from bank, (M)odified from bank, (N)ew, (A)lternate path, (C)ontrol room, (S)imulator, (L)ow- Power, (R)CA		



ARS-1, Respond to Condenser High Pressure, Rev. 2003 ILT NRC

JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- Unit is at 6% power.
- There are indications of increased air in-leakage into the main condenser.

**INITIATING CUES (IF APPLICABLE):**

- The SS directs you to respond to the air in-leakage and rising condenser pressure using Annunciator Response C47008-0209.

JPM PERFORMANCE INFORMATION

Required Materials:

General References:

- Annunciator Response Procedure C47008
- C26, "Air Removal System"

Task Standards:

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

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

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

**NOTE:** Insert FW03B (air leak on B condenser) at a severity rate adequate to cause the condenser high pressure alarm on ERCS and allow the examinee time to place the standby air ejector in service. Immediately after the air ejector is placed in service, increase the severity to cause the 1A/1B condenser vacuum DP to exceed 2.5 in. Hg, requiring a manual reactor and turbine trip.

Note to evaluator:

Plant design is such that Condenser high pressure on B condenser will not result in any CB annunciators or auto trip. B condenser high pressure will result in an ERCS alarm. Design assumes the highest pressure will be A Condenser because the Circ water passes through B then A. Alarms and trips are on A condenser.

The examinee may trip the turbine for any of the following reasons:

- Condenser high pressure 20 to 23 in. Hg
- Condenser backpressure outside allowable limit.
- Condenser DP > 2.5 in. Hg

<b>Performance Step:</b>	Critical <u>N</u> Verify low vacuum using available indications.
<b>Standard:</b>	Verifies low vacuum using any available indications: <ul style="list-style-type: none"> <li>• PI-4122001 and PI-4122002 (control board)</li> <li>• 1P0300A and 1P0301A (plant computer)</li> </ul>
<b>Performance:</b>	SATISFACTORY <u>  </u> UNSATISFACTORY _____
<b>Comments:</b>	_____

ARS-1, Respond to Condenser High Pressure, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>N</u>	Refers to Figure C1-20 to verify condenser backpressure is in the acceptable region of Figure C1-20
<b>Standard:</b>	Verify the most limiting condenser vacuum is within allowable region of Figure C1-20. (Backpressure must be less than 5.5 psia)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify >3 psig on gland steam seal supply.
<b>Standard:</b>	PI-4121902 reads >3 psig. (This value is already present)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify condenser vacuum breakers are CLOSED.
<b>Standard:</b>	Vacuum breaker valves are closed. (MV-32052 and MV-32349) (These valves are already closed)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify air ejectors are functioning.
<b>Standard:</b>	This can be accomplished by verifying air flow on FI-41230. (Air ejectors are functioning)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

ARS-1, Respond to Condenser High Pressure, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>N</u>	Verify proper circulating water flow for the power level.
<b>Standard:</b>	Two circulating water pumps are running (if power is >350 MWe). (These pumps are already running)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Determine if vacuum is still decreasing.
<b>Standard:</b>	Correctly determines that vacuum is still decreasing and implements C26 to place standby air ejector in service.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Open MV-32328, Standby Air Ejector Steam Supply
<b>Standard:</b>	MV-32328, Standby Air Ejector Steam Supply is opened.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Open MV-32358, Standby Secondary Air Ejector Suction
<b>Standard:</b>	Open MV-32358, Standby Secondary Air Ejector Suction is opened.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

ARS-1, Respond to Condenser High Pressure, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>Y</u>	Open either (or both) suction valves for the air ejector.
<b>Standard:</b>	MV-32347, Standby Primary Air Ejector Suction From B Condenser is opened. (It is not critical to open MV-32346 and is acceptable to have this valve opened also.)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Open SV-33341, Air Ejector Loop Seal Drain
<b>Standard:</b>	SV-33341, Air Ejector Loop Seal Drain is opened.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	If SV-33341 was opened, then notify Duty Chemist.
<b>Standard:</b>	Duty Chemist is informed that the loop seal drain valve is open.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

ARS-1, Respond to Condenser High Pressure, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>Y</u>	Determine if any condenser high pressure limit is exceeded and initiate a manual reactor and turbine trip.
<b>Standard:</b>	Manual turbine trip is performed before condenser differential pressure exceeds 3.5" Hg.
<b>Evaluator Note:</b>	<b>Candidate may attempt a reactor trip which will also cause the turbine to trip.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** After the candidate manually trips the turbine, inform the candidate that the JPM is complete.

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

## SIMULATOR SETUP

<i>Relative Order</i>	<i>Type</i>	<i>Code</i>	<i>Severity or Value</i>	<i>Event Trigger</i>	<i>Description</i>
	MALF	FW 03 B	60%		Condenser high pressure

## **TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit is at 6% power.
- There are indications of increased air in-leakage into the main condenser.

**INITIATING CUES (IF APPLICABLE):**

- The SS directs you to respond to the air in-leakage and rising condenser pressure using Annunciator Response C47008-0209.

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

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

REVIEW STATEMENTS	YES	NO	N/A
1. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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



JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- A Loss of All AC Power has occurred and the crew is at step 18 of ECA 0.0.
- All efforts to restore power have been unsuccessful so far.

**INITIATING CUES (IF APPLICABLE):**

- The Unit 1 SS has directed you to perform a local Emergency Start of D1 per 1C20.7, "D1/D2 Diesel Generators."

**JPM PERFORMANCE INFORMATION**

**Required Materials:**

Flashlight and copy of C20.7

**General References:**

C20.7

**Task Standards:**

Perform local emergency start of a Diesel Generator

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

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

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> Critical <u>Y</u>	Obtain a flashlight and a copy of C20.7 and proceed to D1 Diesel Generator Room.
<b>Evaluator Note:</b>	When examinee indicates intent to obtain a copy of C20.7, then provide copy of the procedure.
<b>Standard:</b>	Arrives at <u>D1</u> Diesel Generator Room.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Places engine control switch in local
<b>Standard:</b>	At D1 engine control panel simulates placing CS-55309 engine control switch in local.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify Control at Engine light lit.
<b>Standard:</b>	Verifies on the Diesel Generator Gage panel that the Control at Engine light is lit.
<b>Evaluator Cue:</b>	<b>When the examinee looks at the Control at Engine Light, tell examinee the light is lit.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Attempts local start of D1 Diesel Generator.
<b>Standard:</b>	Examinee simulates placing CS-55308 D1 Engine Control switch in the start position.
<b>Evaluator Cue:</b>	<b>When the examinee simulates placing the control switch in the start position, tell the examinee nothing has changed.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Manually open D1 air start valve
<b>Standard:</b>	Examinee simulates manually opening D1 air start control valve CV-31954.
<b>Evaluator Note:</b>	<b>CV-31954 must be unlocked before it can be operated.</b>
<b>Evaluator Cue:</b>	<b>When examinee simulates opening CV-31954, tell examinee that the engine started.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Manually close D1 air start valve
<b>Standard:</b>	Examinee simulates closing CV-31954
<b>Performance:</b>	SATISFACTORY <u>  </u> UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Manually Flash D1 Diesel Generator field.
<b>Standard:</b>	Examinee simulates depressing CS-55301 to initiate manual Field Flash of D1 Diesel Generator.
<b>Evaluator Cue:</b>	<b>When examinee observes frequency and voltage on the local gage panel, indicate frequency as 59 HZ and voltage as 3600 Volts</b>
<b>Performance:</b>	SATISFACTORY <u>  </u> UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Adjust frequency of D1 Diesel Generator.
<b>Standard:</b>	Examinee simulates adjusting D1 Frequency as needed to obtain 60 Hz as indicated on the local gage panel.
<b>Examiner Cue:</b>	<b>When examinee observes frequency on the local gage panel, indicate frequency as 59 HZ.</b> <b>When examinee simulates turning the speed control to raise and looks at the HZ meter, indicate frequency is now 60 HZ.</b>
<b>Performance:</b>	SATISFACTORY <u>  </u> UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Adjust voltage of D1 Diesel Generator.
<b>Standard:</b>	Examinee simulates adjusting D1 voltage as needed to obtain approximately 4160 volts as indicated on the local gage panel.
<b>Examiner Cue:</b>	<b>When examinee observes voltage on the local gage panel, indicate voltage as 3600 Volts.</b>  <b>When the examinee simulates turning the voltage adjust knob clockwise and looks at the meter, indicate voltage is now 4200 volts.</b>
<b>Performance:</b>	SATISFACTORY <u>  </u> UNSATISFACTORY _____
<b>Comments:</b>	_____

**Terminating Cues:** When frequency and voltage are adjusted to 60 Hz and 4200 volts.

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

## **TURNOVER SHEET**

**INITIAL CONDITIONS:**

- A Loss of All AC Power has occurred and the crew is at step 18 of ECA 0.0.
- All efforts to restore power have been unsuccessful so far.

**INITIATING CUES (IF APPLICABLE):**

- The Unit 1 SS has directed you to perform a local Emergency Start of D1 per 1C20.7, "D1/D2 Diesel Generators."

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
14. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. 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"/>
21. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
23. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
25. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

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

**SITE:** **Prairie Island**

**TASK TITLE:** **RESPOND TO CONDENSER HIGH PRESSURE**

**JPM NUMBER:** **ARS-1** **REV.** **2003 ILT NRC**

**RELATED PRA INFORMATION:** **PRA Identified Task**  
**DOMINANT EVENT SEQUENCE leading to loss of secondary heat sink contributes 22% to CDF. This task is part of the mitigating strategies for loss of secondary heat sink.**

**TASK NUMBERS:**

**K/A NUMBERS:** **054.AA1.08 / 054.AA2.02**

**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/Faulted: YES

**TASK APPLICABILITY:** SRO, RO

<b>Developed by:</b>	<b>Dennis Westphal</b>	<b>7/14/03</b>
	Instructor	Date
<b>Validated by:</b>	<b>Paul Cooper</b>	<b>7/14/03</b>
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>		
	Training Supervisor	Date

EO-21SF-1, RCS Bleed & Feed During Response to a Loss of Secondary Heat Sink with a PORV Failing to Open, Rev. 2003 ILT NRC

JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- Unit 1 reactor tripped on a loss of feedwater ATWS.
- The AFW pumps tripped.
- 1FRS.1 and 1E-0 have been performed and a transition to 1ES-0.1 “Reactor Trip Recovery” was just made.
- The crew identified a red path on heat sink.
- ERCS data is unreliable. Do not use ERCS.
- Outplant operators are attempting to establish AFW flow per C28.1.

**INITIATING CUES (IF APPLICABLE):**

- You have been directed by the SS to respond to the heat sink red path per FR-H.1 “Loss of Secondary Heat Sink”, step 1.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** None  
**General References:** 1FR-H.1  
**Task Standards:** Bleed and feed established to RCS

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

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

**NOTE:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> Critical <u>N</u>	Check RCS pressure greater than any intact S/G pressure.
<b>Standard:</b>	RCS pressure checked on RCS pressure indicators - 1PI-709, 1PI-710 or recorder 1PR-420; <b>OR</b> PRZR pressure indicators - 1PI-429, 430,431, 449A, or recorder 1PR-429; and compared to S/G pressure on <ul style="list-style-type: none"><li>• #11 S/G pressure recorder - 42068 or verified using 1PI-468, 469, 482A for #11 S/G.</li><li>• #12 S/G pressure recorder - 42069 or verified using 1PI-478, 479, 483A for #12 S/G.</li></ul>
<b>Performance:</b>	SATISFACTORY ____ UNSATISFACTORY ____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Check RCS hot leg temperature greater than 350°F.
<b>Standard:</b>	RCS hot leg temperature verified > 350°F on 1TR-450 and 1TR-451.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Check wide range level greater than 9% in either S/G.
<b>Standard:</b>	S/G levels checked, less than 9% on 1LR-460 and 1LR-470.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u> (SEQ-1)	Stop #11 and #12 reactor coolant pumps.
<b>Standard:</b>	CS-46255 and CS-46256 to stop; green indicating lights on.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u> (SEQ-2)	Actuate SI.
<b>Standard:</b>	SI actuated with CS-46408 or CS-46180. Annunciator 47014-0604 energized.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

EO-21SF-1, RCS Bleed & Feed During Response to a Loss of Secondary Heat Sink with a PORV Failing to Open, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>N</u>	Check #11 or #12 SI pumps running.
<b>Standard:</b>	CS-46178 or CS-46179 red indicating light on; discharge pressure on 1PI-922 or 1PI-923.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Check SI valve alignment for operating pumps - proper emergency alignment.
<b>Standard:</b>	<b>Suction Valves:</b> <ul style="list-style-type: none"><li>• MV-32162 open; CS-46193 red indicating light on</li><li>• MV-32163 open ; CS-46194 red indicating light on</li></ul> <b>RWST to SI Pumps. SI Not Ready Light not lit for:</b> <ul style="list-style-type: none"><li>• MV-32079 (Panel 44102-D5)</li><li>• MV-32080 (Panel 44102-E5)</li></ul> <b>SI Supply to Cold Legs. SI Not Ready Lights not lit for:</b> <ul style="list-style-type: none"><li>• MV-32070 (Panel 44102-C3)</li><li>• MV-32068 (Panel 44102-D3)</li><li>• MV-32073 (Panel 44102-A3)</li></ul>
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Reset containment isolation.
<b>Standard:</b>	Containment isolation reset with CS-46083 and CS-46084. Annunciator 47018-0505 de-energized.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

EO-21SF-1, RCS Bleed & Feed During Response to a Loss of Secondary Heat Sink with a PORV Failing to Open, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>N</u>	Establish instrument air to containment.
<b>Standard:</b>	CV-31740 and CV-31741 verified open. Red indication light on CS-46154 and CS-46155.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify power to pressurizer PORV block valves available.
<b>Standard:</b>	Red indicating light on CS-46263 energized. Green indicating light on CS-46264 energized.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify PRZR PORV block valves - both open
<b>Standard:</b>	MV-32196 closed, CS-46264 green light on. MV-32195 open, CS-46263 red light on.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u> (SEQ-3)	Open MV-32196 (CV-31232 block valve).
<b>Standard:</b>	CS-46264 taken to the open position. Red indicating light on; green indicating light off.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

EO-21SF-1, RCS Bleed & Feed During Response to a Loss of Secondary Heat Sink with a PORV Failing to Open, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>N</u>	Open CV-31231 pressurizer PORV.
<b>Standard:</b>	CS-46260 placed in the open position.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u> (SEQ-3)	Open CV-31232 pressurizer PORV.
<b>Standard:</b>	CS-46259 placed in the open position .
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify adequate RCS vent path, both PORVs open.
<b>Standard:</b>	CV-31231 closed, CS-46260 green light on. CV-31232 open, CS-46259 red light on.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u> (SEQ-3)	Open RCS vents.
<b>Standard:</b>	SV-37035 opened, CS-46282 taken to open, CS-46282 red light on. SV-37036 opened, CS-46285 taken to open, CS-46285 red light on. SV-37037 opened, CS-46283 taken to open, CS-46283 red light on. SV-37038 opened, CS-46286 taken to open, CS-46286 red light on.  And either of the following: SV-37039 opened, CS-46284 taken to open, CS-46284 red light on. <u>OR</u> SV-37040 opened, CS-46287 taken to open, CS-46287 red light on.
<b>Performance:</b>	SATISFACTORY ___ UNSATISFACTORY ___
<b>Comments:</b>	_____

**QF-1030-11 Rev. 1 (FP-T-SAT-30)**

EO-21SF-1, RCS Bleed & Feed During Response to a Loss of Secondary Heat Sink with a PORV Failing to Open, Rev. 2003 ILT NRC

**Terminating Cues:** SI pumps running with flow, one PZR PORV open, RCS vents open

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

## SIMULATOR SETUP

### Instructor Guide:

- Initialize the simulator to IC-10.
- Close MV-32196 (PCV-430 Block Valve).
- Insert malfunction for Pzr PORV 431C failure (relative order 0)
- Insert malfunctions FW13A and FW13B (feedwater pump trip) on remote #1 (relative order 1).
- Insert malfunctions FW32, FW33 (AFW pump trip) on remote #2 (relative order 2).
- I/O #11 SG WR level recorder, #12 SG WR level recorder (relative order 3):
  - 42064-R 42078-G
  - 42064-G 42078-R
  - 46064-B 42078-B
- Freeze; give initial conditions.
- Silence alarms when ready to begin JPM. Take simulator to run.

REL. ORDER	PAGE	ENTRY CODE	ENTRY DESCRIPTION
0	MFS	1, RC16B	PZR PORV PCV-431C failed closed.
1	MFS	2, FW13A,,,,,1	#11 feedwater pump trip
1	MFS	3, FW13B,,,,,1	#12 feedwater pump trip
2	MFS	4, FW32,,,,,2	#11 AFW pump trip
2	MFS	5, FW33,,,,,2	#12 AFW pump trip
3	IOS	1, 42064-R,,,5	11 S/G wide range recorder red
3	IOS	2, 42064-G,,,5	11 S/G wide range recorder green
3	IOS	3, 42078-R,,,5	12 S/G wide range recorder red
3	IOS	4, 42078-G,,,5	12 S/G wide range recorder green
3	IOS	5, 42064-B,,,5	11 S/G wide range recorder blue
3	IOS	6, 42078-B,,,5	12 S/G wide range recorder blue

## **TURNOVER SHEET**

### **INITIAL CONDITIONS:**

- Unit 1 reactor tripped on a loss of feedwater ATWS.
- The AFW pumps tripped.
- 1FRS.1 and 1E-0 have been performed and a transition to 1ES-0.1 “Reactor Trip Recovery” was just made.
- The crew identified a red path on heat sink.
- ERCS data is unreliable. Do not use ERCS.
- Outplant operators are attempting to establish AFW flow per C28.1.

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

- You have been directed by the SS to respond to the heat sink red path per FR-H.1 “Loss of Secondary Heat Sink”, step 1.

**ATTACHMENT 1  
JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

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

REVIEW STATEMENTS	YES	NO	N/A
27. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
29. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
30. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
31. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
32. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
33. 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"/>
34. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
35. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
36. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
37. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
38. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
39. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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



**Operator:** \_\_\_\_\_ (SRO / RO / NLO)

**Evaluator:**

**Date:**

### READ TO THE OPERATOR

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.

#### INITIAL CONDITIONS:

- Unit 1 was starting up and drawing vacuum in the main condenser.
- A SI occurred and 1E-0 was completed to the point of transition to E-3.
- During E-3, the ruptured SG "A" MSIV did not close.
- The intact SG "B" MSIV has been closed.

#### INITIATING CUES:

- The SS directs you to isolate the main steam line per E-3 Attachment B.
- Report completion to the SS.

**JPM PERFORMANCE INFORMATION**

**Required Materials:**           None

**General References:**        1E-3

**Task Standards:**             11 Steam Generator Isolated

**Start Time:**

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

**NOTE: Critical steps are marked with an “X” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.**

<b>Performance Step:</b>	<b>Critical <u>  X  </u></b> Dispatch personnel to locally close cylinder heating isolation valves. (S-1)
<b>Standard:</b>	Turbine Building Operator requested to close CY-1-1 and CY-1-4.
<b>Evaluator Note:</b>	<b>Do not indicate that they are closed yet. Report back on these valves comes later in the JPM. Step 2 may also be done in conjunction with this step.</b>
<b>Evaluator Cue:</b>	<b>As Turbine Building Operator, acknowledge request to close CY-1-1 and CY-1-4.</b>
<b>Performance:</b>	SATISFACTORY <u>      </u> UNSATISFACTORY
<b>Comments:</b>	_____

<b>Performance Step:</b>	<b>Critical <u>  X  </u></b> Dispatch personnel to locally close air ejector suction valves. (S-1)
<b>Standard:</b>	Turbine Building Operator requested to close AR-5-1 and AR-5-2.
<b>Evaluator Note:</b>	<b>Do not indicate that they are closed yet. Report back on these valves comes later in the JPM.</b>
<b>Evaluator Cue:</b>	<b>As Turbine Building Operator, acknowledge request to close AR-5-1 and AR-5-2.</b>
<b>Performance:</b>	SATISFACTORY <u>      </u> UNSATISFACTORY
<b>Comments:</b>	_____

<b>Performance Step: Critical</b>	Verify turbine stop valves closed.
<b>Standard:</b>	Checks stop valve status lights on EHC panel for Green on SV-1 and SV-2 (upper left on each side) and/or checks annunciators 47007:0603 and 47007:0604 solid.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b>	Verify MSR steam isolation valves closed.
<b>Standard:</b>	Checks Green valve indicating lights above the turbine control panel lit for: CV-31096, CV-31097, CV-31094, and CV-31095.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b> <input checked="" type="checkbox"/> <b>(S-2)</b>	When air ejector suction valves are closed, then close normal and secondary air ejector steam supply valves.
<b>Standard:</b>	Closes MV-32327/MV-32355 using CS-46401 after CY-1-1, CY-1-4, AR-5-1, and AR-5-2 are reported to be closed.
<b>Evaluator Cue:</b>	<b>As Turbine Building Operator, report that, "CY-1-1, CY-1-4, AR-5-1, and AR-5-2 are closed."</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b>	Verify standby air ejector suction valves closed.
<b>Standard:</b>	Checks MV-32346 and MV-32347 Green lights lit.
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b>	Verify standby air ejector steam supply valves closed.
<b>Standard:</b>	Checks MV-32328 Green light lit.
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b> <input checked="" type="checkbox"/> (S-2)	Verify 11 and 12 hogging jet suction valves closed.
<b>Standard:</b>	Closes MV-32308 and MV-32309 using CS-46393 and CS-46394.
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b> <input checked="" type="checkbox"/> (S-2)	Verify 11 and 12 hogging jet steam supply valves closed.
<b>Standard:</b>	Closes MV-32316 and MV-32317 using CS-46395 and CS-46396.
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step: Critical</b>	Verify steam dumps selected to OFF.
<b>Standard:</b>	Checks CS-46460 or CS-46461 in OFF/RESET.
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <input checked="" type="checkbox"/> (S-2)	Verify A/B main steam line free blows closed.
<b>Standard:</b>	Closes CV-31645 and CV-31646 on "B" panel using CS-46320.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical	Evaluate the need to transfer gland steam to heating steam.
<b>Standard:</b>	Directs the Turbine Building Operator to transfer gland steam to heating steam.
<b>Evaluator Note:</b>	Candidate may confer with SS on need to transfer gland steam.
<b>Evaluator Cue:</b>	If asked as SS, respond to candidate that, "we need to transfer gland steam to heating steam." When directed as Turbine Building Operator, respond to candidate that, "gland steam is being transferred to heating steam."
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** The candidate should report to the SS that, "E-3 Attachment B is complete." At this point, inform the candidate that, "this JPM is complete."

**Stop Time:**

## SIMULATOR SETUP

### Instructor Guide:

- Initialize the simulator to IC-1.
- Place the simulator in "RUN" and allow ERCS to come up and stabilize.
- Perform the actions of 1C1.2 for heatup, up to and including step 5.3.7.D, which places the air removal system in service per C26.
- Enter override to fail 11 MSIV as is. (*Relative Order 0*)
- Enter malfunction to cause a SGTR on 11 SG. (*Relative Order 1*)
- Trip the reactor and actuate SI.
- Close MS-32115, CC supply to SFP HXs.
- Open the turbine HP drains.
- Place steam dump in "STM PRESS" mode.
- Close MV-32016, steam to TD AFW.
- Close B MSIV.
- Set B SG PORV to 71.8%.
- Place one steam dump in OFF.
- Place the simulator in "FREEZE" until the candidate is ready.

**SIMULATOR SETUP**

<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	MCB-D1-D11	OVRD DI	46158C CLOSE	OFF			11 MSIV control switch as is
1	SG01	MALF	SG02A	10			11 SGTR

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Unit 1 was starting up and drawing vacuum in the main condenser.
- A SI occurred and 1E-0 was completed to the point of transition to E-3.
- During E-3, the ruptured SG "A" MSIV did not close.
- The intact SG "B" MSIV has been closed.

### INITIATING CUES:

- The SS directs you to isolate the main steam line per E-3 Attachment B.
- Report completion to the SS.



ARS-1 RESPOND TO CONDENSER HIGH PRESSURE, Rev. 2003 ILT NRC

JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

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

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

JPM BRIEFING/TURNOVER

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

*Review PITC-90, JPM Briefing Checklist with trainee.*

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

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

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

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

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

**INITIAL CONDITIONS:**

- Unit 1 was operating at 100% power with no equipment out of service.
- Unit 1 has just experienced an SI.
- Verification of immediate actions of 1E-0 is complete.

**INITIATING CUES (IF APPLICABLE):**

- The Unit 1 SS has directed you to perform Attachment L.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** None

**General References:** 1E-0 Attachment L Auto Actions Guide

**Task Standards:** Perform Attachment L. Identify and manually actuate/close Containment Isolation valves 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).

**NOTE:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> Critical <u>N</u>	SI NOT READY lights – NOT LIT
<b>Standard:</b>	Verifies SI NOT READY lights are not lit.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	SI ACTIVE lights – lit for plant conditions
<b>Standard:</b>	Verifies SI ACTIVE Lights are LIT.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

ARS-1 RESPOND TO CONDENSER HIGH PRESSURE, Rev. 2003 ILT NRC

<b>Performance Step: Critical Y (SEQ-)</b>	Containment Isolation lights – lit for plant conditions. <ul style="list-style-type: none"><li>• If NOT, then manually or locally align components as necessary.</li></ul>
<b>Standard:</b>	<b>Identifies a CI train has failed to actuate.</b> <b>Actuates containment Isolation using either control board switch.</b>
<b>Performance:</b>	SATISFACTORY __ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step: Critical Y</b>	Containment Isolation lights – lit for plant conditions. <ul style="list-style-type: none"><li>• If NOT, then manually or locally align components as necessary.</li></ul>
<b>Standard:</b>	<ul style="list-style-type: none"><li>• <b>Identifies letdown CI valve CV-31339, Letdown Line Containment Isolation, failed to close.</b></li><li>• <b>Attempts manual closure.</b></li><li>• Contacts out-plant operator to locally close the valve using Attachment G to determine valve location, if needed.</li></ul>
<b>Evaluator Note:</b>	<b>Due to wording “as necessary”, the candidate may note that the flow path is isolated using series letdown isolation valves and the parallel letdown orifice isolation valves and simply note this valve as an “exception” to be discussed with the SS.</b>
<b>Performance:</b>	SATISFACTORY __ UNSATISFACTORY _____
<b>Comments:</b>	_____

**Terminating Cues:** When the candidate manually initiates CI and attempts to close CV-31339, inform the candidate that, "this JPM is complete."

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

SIMULATOR SET UP: *(Modify table as necessary)*

Simulator Setup Instructions:

- Setup the simulator to IC-10 per normal checklist.
- Place the simulator in RUN.
- Actuate safety injection using either control board switch.
- WHEN the safeguards buses have completed load rejection/restoration, THEN acknowledge alarms and place the simulator in FREEZE.
- Provide the examinee with the turnover information.
- WHEN the examinee is ready to begin, THEN **place** the simulator in RUN.

<i>Relative Order</i>	<i>Type</i>	<i>Code</i>	<i>Severity or Value</i>	<i>Event Trigger</i>	<i>Description</i>
0	Malfunction	RP05			Train A CI Fails to Actuate
0	OVRD DI	46166O open	ON		CV-31339 fails to close

## **TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 was operating at 100% power with no equipment out of service.
- Unit 1 has just experienced an SI.
- Verification of immediate actions of 1E-0 is complete.

**INITIATING CUES (IF APPLICABLE):**

- The Unit 1 SS has directed you to perform Attachment L.

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
40. Are all items on the signature page filled in correctly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
41. Has the JPM been reviewed and validated by SMEs?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45. Has the completion time been established based on validation data or incumbent experience?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46. If the task is time critical, is the time critical portion based upon actual task performance requirements?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47. Is the Licensee level appropriate for the task being evaluated if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
48. Is the K/A appropriate to the task and to the licensee level if required?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
49. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
50. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
51. Are all references identified, current, accurate, and available to the trainee?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
52. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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



JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).


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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- The reactor has tripped.
- E-0, "Reactor Trip or Safety Injection" is in effect.
- Steps 1 through 5 have been completed.

**INITIATING CUES (IF APPLICABLE):**

- Perform E-0 starting at step 6.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** None

**General References:** E-0, "Reactor Trip or Safety Injection"

**Task Standards:** RCS depressurization (due to failed spray valve) is stopped.

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

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

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> 6a	Verify total AFW flow - GREATER THAN 200 GPM
<b>Critical</b> <u>N</u>	
<b>Standard:</b>	Ensures total flow > 200 gpm (Meters 4122702 and 4122802)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> 6b	Verify AFW pumps discharge pressure - GREATER THAN 900 PSIG
<b>Critical</b> <u>N</u>	
<b>Standard:</b>	Ensures pump discharge pressure is > 900 psig (Meters 4122701 and 4122801)
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> 6c <b>Critical</b> <u>N</u>	Check SG levels - NARROW RANGE GREATER THAN 5% [Wide Range 50%] IN EITHER SG
<b>Standard:</b>	<b>Makes the correct determination of SG level. (LI461-462 for 11 SG and LI471-473 for 12 SG)</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> 6d <b>Critical</b> <u>N</u>	Control feed flow to maintain narrow range SG level between 5% and 50% [Wide Range 50% and 59%]
<b>Standard:</b>	<b>When level is within the range, SG level does not exceed limits due to operator negligence.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> 7 <b>Critical</b> <u>N</u>	Check RCS Temperature: <ul style="list-style-type: none"><li>• RCS average temperature - STABLE AT OR TRENDING TO 547°F IF ANY RCP RUNNING</li><li>-OR-</li><li>• RCS cold leg temperatures - STABLE AT OR TRENDING TO 547°F IF NO RCP RUNNING</li></ul>
<b>Standard:</b>	<b>Makes the correct interpretation of temperature trend.</b> <ul style="list-style-type: none"><li>• TR401 or meters TI-401 thru 404 if RCPs are running</li><li>• TR450 and TR451 if RCPs are stopped.</li></ul> <b>Uses the correct instruments based on RCP status.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> 8a <b>Critical</b> <u>N</u>	Check Pressurizer PORVs and Spray Valves: a. PZRZ PORVs - CLOSED
<b>Standard:</b>	<b>Checks Pressurizer PORVs closed using valve position lights, acoustic monitor and/or tailpipe temperature.</b>
<b>Evaluator Note:</b>	<b>The PORVs are already closed.</b>

<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: 8b</b> <b>Critical <u>Y</u></b>	Check Pressurizer PORVs and Spray Valves: b. PZRZ spray valves - CLOSED
<b>Standard:</b>	<b>Determines that a spray valve is OPEN by checks of Pressurizer spray valves controller output (HC431H) and/or spray line temperature (TI423).</b>
<b>Evaluator Note:</b>	<b>Loop B spray valve is OPEN.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical <u>Y</u></b>	Check Pressurizer pressure <2260 psig and attempt to manually close spray valve.
<b>Standard:</b>	<b>Correctly determines that Pressurizer pressure is &lt;2260 psig. (PI429 thru 431 and PI449) Operator attempts to close spray valve using HC431H.</b>
<b>Evaluator Note:</b>	<b>Loop B spray valve will NOT close.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step: Critical <u>Y</u></b>	Stop both RCPs.
<b>Standard:</b>	<b>Both RCP breakers are opened.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**QF-1030-11 Rev. 1 (FP-T-SAT-30)**

EO-30SF-1, Respond to Stuck Open Pressurizer Spray Valve, Rev. 2003 ILT NRC

**Terminating Cues:**           **After examinee stops both RCPs, inform examinee the JPM is complete.**

**Stop Time:**           \_\_\_\_\_

## SIMULATOR SETUP

<i>Relative Order</i>	<i>Type</i>	<i>Code</i>	<i>Severity or Value</i>	<i>Event Trigger</i>	<i>Description</i>
0	MALF	RC24B		1	Pzr spray mech stuck open
0	OVERRIDE	AO-4304103:M2	100	2	Controller Output

1. Reset the simulator to IC-10.
2. Place the simulator in RUN
3. Manually open spray valve PCV-431B (CV-31225)
4. When spray valve is full open, activate TRIGGER 1.
5. Manually restore controller 1HC-431H (PCV-431B) to 0 output.
6. Activate TRIGGER 2.
7. After the reactor trips, wait 60 seconds and then **freeze** simulator.

## **TURNOVER SHEET**

**INITIAL CONDITIONS:**

- The reactor has tripped.
- E-0, "Reactor Trip or Safety Injection" is in effect.
- Steps 1 through 5 have been completed.

**INITIATING CUES (IF APPLICABLE):**

- Perform E-0 starting at step 6.

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
53. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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56. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
57. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
58. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
59. 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"/>
60. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
61. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
62. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
63. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
64. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
65. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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



JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).

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

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

JPM BRIEFING/TURNOVER

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

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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 were at 100% power.
- A fire occurred in the Control Room and thick black smoke made visibility very difficult.
- The Unit 1 SS made the decision to evacuate the Control Room and to implement F5 Appendix B, “Control Room Evacuation (Fire).”
- You are the Unit 1 RO and have completed steps A through D of F5 Appendix B, Attachment C, such that the:
  - reactor is tripped
  - turbine is tripped
  - MSIV's are closed
  - pressurizer PORV block valves are closed

**INITIATING CUES (IF APPLICABLE):**

- You are to complete the Unit 1 RO actions for Control Room Evacuation in accordance with F5 Appendix B, Attachment C, starting at Step H.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** Copy of F5 Appendix B, Attachment C  
**General References:** F5 Appendix B  
**Task Standards:** F5 Appendix B, Attachment C - Unit 1 Reactor Operator Actions completed.

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

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

**NOTE:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> Critical <u>N</u>	Proceed with radio, flashlight, set of keys, and this Attachment (C) to Unit 1 turbine front standard and verifies turbine is tripped.
<b>Standard:</b>	Examinee goes to Unit 1 turbine front standard with radio, flashlight, set of keys, and Attachment C and verifies Unit 1 turbine is tripped.
<b>Evaluator Note:</b>	<b>Order of turbine check is not important.</b>
<b>Evaluator Cue:</b>	As examinee states that he/she would obtain a radio, flashlight, and set of keys, inform examinee that they have obtained said items.  Turbine tripped cues: <ul style="list-style-type: none"><li>• Stop valve stems are down (i.e. linkage arms are near bottom of notch)</li><li>• Control valve stems are down.</li><li>• Auto-stop oil pressure is near 0 psig. (PI-11714)</li></ul>
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step: Critical <u>N</u></b>	Proceed to Unit 2 turbine front standard and verify turbine is tripped.
<b>Standard:</b>	Examinee goes to Unit 2 turbine front standard and verifies Unit 2 turbine is tripped.
<b>Evaluator Note:</b>	<b>Order of turbine check is not important.</b>
<b>Evaluator Cue:</b>	<b>Turbine tripped cues:</b> <ul style="list-style-type: none"><li>• Stop valve stems are down (i.e. linkage arms are near bottom of notch)</li><li>• Control valve stems are down.</li><li>• Auto-stop oil pressure is near 0 psig. (PI-11715)</li><li>• Main Oil Pump pressure is 350 psig and lowering (PI-11414)</li></ul>
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	_____

<b>Performance Step: Critical <u>N</u></b>	Proceed to the Screenhouse, 675' level, and check PI-11021, 11 MD CLWP DSCH PI 75 psig or greater. (Use lighted stairwell, near Records Room, across under turbine pedestal, out through Old Admin Bldg door to Screenhouse east door, then use stairwell on east end of Screenhouse to reach 675' level.)
<b>Standard:</b>	Examinee goes to Screenhouse 675' level and checks PI-11021 75 psig or greater.
<b>Evaluator Cue:</b>	<b>PI-11021 indicates 0 psig.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	_____

<b>Performance Step: Critical (S-1)</b>	<u>Y</u> If PI-11021 is reading less than 75 psig, then proceed to 12 DDCLP room and start 12 DDCLP as follows: 1. OPEN knife switch SW 7030038, 12 DD CLWP Cont Pnl Pwr Isol Knife Switch.
<b>Standard:</b>	Examinee goes to 12 DDCLP room and simulate OPENING knife switch SW 7030038.
<b>Evaluator Note:</b>	<b>Knife switch is inside panel.</b>
<b>Evaluator Cue:</b>	<b>Provide cues as needed to insure you as the examiner clearly understand the action the examinee has simulated.</b>
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step: Critical (S-2)</b>	<u>Y</u> If PI-11021 is reading less than 75 psig, then proceed to 12 DDCLP room and start 12 DDCLP as follows: (cont'd) 2. Manually override one of the starting air solenoid valves, by turning the small knob at the base of the solenoid, to admit air to the starting motor. Return the knob to the "SHUTOFF" position when the engine gets up to full speed.
<b>Standard:</b>	<ul style="list-style-type: none"> <li>• Simulates turning the small knob at the base of a starting air solenoid.</li> <li>• Checks engine rpm.</li> <li>• When the engine is up to full speed, simulates manually returning solenoid to the "SHUTOFF" position</li> </ul>
<b>Evaluator Cue:</b>	<b>When examinee indicates that he/she has turned the override knob to admit air to the starting motor, indicate rpm rising to 1190.</b>
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step: Critical</b>	<u>N</u> Verify OPEN CV-31423, 12 DD Clg Wtr Jckt Clr Outl CV.
<b>Standard:</b>	CV-31423 verified OPEN.
<b>Performance:</b>	SATISFACTORY _____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify cooling water header is pressurized using PI-11022, 12 DD CLWP Dsch PI.
<b>Standard:</b>	PI-11022 used to verify cooling water header pressurized.
<b>Evaluator Cue:</b>	PI-11022 indicates 85 psig.
<b>Performance:</b>	SATISFACTORY ____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u> (S-3)	Proceed to 121 MD Cooling Water Pump Room and place CS-19058, 11 Sfgds Scrnhse Roof Exht Fan, in the "ON" position.
<b>Standard:</b>	CS-19058 simulated placed in the "ON" position.
<b>Performance:</b>	SATISFACTORY ____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	If it was necessary to start 12 DDCLP, then proceed to 22 DDCLP Room and check 22 DDCLP running.
<b>Standard:</b>	Examinee goes to 22 DDCLP Room to determine that 22 DDCLP is running.
<b>Evaluator Cue:</b>	Can hear the diesel engine running. Engine speed reads about 1190 rpm.
<b>Performance:</b>	SATISFACTORY ____ UNSATISFACTORY _____
<b>Comments:</b>	_____

<b>Performance Step: Critical <u>N</u></b>	Proceed to Screenhouse 695' level, southeast corner, and check PI-11082, Scrnhse FP Hdr PI, 90 psig or greater.
<b>Standard:</b>	Examinee goes to Screenhouse 695' level and checks PI-11082 90 psig or greater.
<b>Evaluator Cue:</b>	<b>PI-11082 indicates 102 psig.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	_____

<b>Performance Step: Critical <u>N</u></b>	Locally isolate air supply to CD-34136 Scavenging & Combustion Air Damper
<b>Standard:</b>	Examinee simulates isolating the air supply to the Scavenging & Combustion air damper (for 12 DD CLP pump).
<b>Evaluator Note:</b>	<b>Air supply valve is not labeled. See provided diagram and picture to ensure correct valve is identified by candidate.</b>
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	_____

<b>Performance Step: Critical <u>N</u></b>	Locally isolate air supply to CD-34139 Scavenging & Combustion Air Damper
<b>Standard:</b>	Examinee simulates isolating the air supply to the Scavenging & Combustion air damper (for 22 DD CLP pump)..
<b>Performance:</b>	<b>SATISFACTORY</b> ____ <b>UNSATISFACTORY</b> _____
<b>Comments:</b>	_____

**Terminating Cues:**           **When the air supply to the dampers is simulated isolated, tell the examinee the JPM is complete.**

**Stop Time:**           \_\_\_\_\_

## TURNOVER SHEET

### INITIAL CONDITIONS:

- Both Units were at 100% power.
- A fire occurred in the Control Room and thick black smoke made visibility very difficult.
- The Unit 1 SS made the decision to evacuate the Control Room and to implement F5 Appendix B, "Control Room Evacuation (Fire)."
- You are the Unit 1 RO and have completed steps A through D of F5 Appendix B, Attachment C, such that the:
  - reactor is tripped
  - turbine is tripped
  - MSIV's are closed
  - pressurizer PORV block valves are closed

### INITIATING CUES (IF APPLICABLE):

- You are to complete the Unit 1 RO actions for Control Room Evacuation in accordance with F5 Appendix B, Attachment C, starting at Step H.

**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
66. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
67. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
68. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
69. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
70. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
71. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
72. 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"/>
73. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
74. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
75. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
76. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
77. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
78. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

_____ Validation Personnel /Date	_____ Validation Personnel/Date



JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- Unit is at 6% power.
- We have an alarm on “PRZR LVL DEVIATION.”

**INITIATING CUES (IF APPLICABLE):**

- The SS has directed you to respond in accordance with annunciator response procedure.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** None

**General References:**

- Annunciator Response Procedure C47012
- 1C51, "Instrument Failure Guide"

**Task Standards:** Respond to a failed high pressurizer level instrument

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

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

**NOTE:** Critical steps are marked with a "Y" below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> Critical <u>N</u>	Refers to C47012 for either of the alarming windows: <ul style="list-style-type: none"><li>• 0407, PRZR HI LVL</li></ul> OR <ul style="list-style-type: none"><li>• 0507, PRZR LVL DEVIATION</li></ul>
<b>Standard:</b>	Annunciator Response Book is opened to an appropriate page.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Determines if an actual condition exists, either high level or level deviation.
<b>Standard:</b>	Determines that actual level problem does NOT exist. Transitions to 1C51, "Instrument Failure Guide" for additional actions.
<b>Evaluator Cue:</b>	When candidate indicates the need to transition to C51, provide a copy to the candidate.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Determine if LT 428 is selected for control.
<b>Standard:</b>	Makes correct decision. Can be determined by what action is taken next.
<b>Evaluator Cue:</b>	The affected channel is selected for control.

Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>N</u>	Control pressurizer heaters manually
Standard:	At least one pressurizer heater control switch is placed in any position except AUTO.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>Y</u>	Place charging in manual and adjust level to setpoint.
Standard:	Charging pump speed control is placed in MANUAL. <ul style="list-style-type: none"><li>• If pressurizer level is above setpoint, charging flow is reduced until total flow is less than letdown + RCP seal leakoff.</li><li>• If pressurizer level is below setpoint, charging flow is raised until total flow is greater than letdown + RCP seal leakoff.</li></ul>
Evaluator Note:	Pressurizer level should be going below program, but level may not have changed much depending on the speed of the candidate.  A good method of determining if charging flow has been raised enough is to verify RCP seal injection flow has been returned to >7.5 gpm.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>Y</u>	Select 2-1 (White-Red) on PZR level control selector switch
Standard:	PZR level control selector switch is placed in 2-1 (White-Red) position.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

<b>Performance Step:</b> Critical <u>N</u>	<b>Complete corrective actions of C-51</b>
<b>Standard:</b>	<b>Complete corrective actions of C-51</b> <ul style="list-style-type: none"><li>- Return pressurizer heaters to auto</li><li>- Return one charging pump speed control to auto</li><li>- Ensure pressurizer level recorder not in Blue channel</li></ul> <b>Recommend SS refer to TS LCO 3.3.1, Condition A</b>
<b>Performance:</b>	<b>SATISFACTORY</b> <input type="checkbox"/> <b>UNSATISFACTORY</b> <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** JPM may be terminated when SS is referred to TS

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

## SIMULATOR SETUP

Setup simulator to custom IC-53 for 2003 ILT NRC Exam.

<i>Relative Order</i>	<i>Type</i>	<i>Code</i>	<i>Severity or Value</i>	<i>Event Trigger</i>	<i>Description</i>
0	OVERIDE ID	RX206	100	2	Pzr level LT 428

Run CAE: "JPM Setup 1"

Place simulator in RUN.

Ensure RCP seal injection flow is approximately 8 gpm before the simulator is frozen by the CAE.

TURNOVER SHEET

**INITIAL CONDITIONS:**

- Unit is at 6% power.
- We have an alarm on "PRZR LVL DEVIATION."

**INITIATING CUES (IF APPLICABLE):**

- The SS has directed you to respond in accordance with annunciator response procedure.

**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
79. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
80. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
81. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
82. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
83. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
84. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
85. 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"/>
86. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
87. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
88. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
89. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
90. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
91. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

_____ Validation Personnel /Date	_____ Validation Personnel/Date

	JOB PERFORMANCE MEASURE (JPM)
---	-------------------------------

**SITE:** **Prairie Island**

**TASK TITLE:** **RESPOND TO CONDENSER HIGH PRESSURE**

**JPM NUMBER:** **ARS-1**                      **REV.**      **2003 ILT NRC**

**RELATED PRA**                      **None**

**INFORMATION:**

**TASK NUMBERS:**

**K/A NUMBERS:** 054.AA1.08 / 054.AA2.02

**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 / Faulted: NO

**TASK APPLICABILITY:** SRO, RO

Additional signatures may be added as needed.

<b>Developed by:</b>	<b>Dennis Westphal</b>	<b>7/14/03</b>
	Instructor	Date
<b>Validated by:</b>	<b>Paul Cooper</b>	<b>08/15/03</b>
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>	Training Supervisor	Date

JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- Unit 1 at 100% reactor power.
- Rad monitor R-4 is OOS (charging pump area monitor).
- You are the LEAD.

**INITIATING CUES (IF APPLICABLE):**

- You are to respond to events as appropriate.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** None  
**General References:** C47048, C12.1  
**Task Standards:** Isolate normal letdown

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

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

**NOTE:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> Critical <u>N</u>	<b>Acknowledge alarm.</b>
<b>Standard:</b>	<ul style="list-style-type: none"><li>• Silence alarm.</li><li>• Scan boards for other alarms.</li><li>• Bring the alarm in “solid.”</li></ul>
<b>Evaluator Note:</b>	<b>You must signal the simulator operator to enter the malfunction when ready to begin.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	<b>Refer to annunciator response procedure C47022.</b>
<b>Standard:</b>	<b>Opens C47022 to the page for alarm window 0108.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Determine the initiating alarm(s) at the RD panel.
<b>Standard:</b>	Determine 1R-9 in alarm.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Refer to C47048 for 1R-9.
<b>Standard:</b>	Opens C47048 to the page for 1R9.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify rad levels high.
<b>Standard:</b>	Verify rad levels high on R-9. Requests RP to verify with portable monitor at letdown monitor location.
<b>Evaluator Cue:</b>	Local reading near 1R9 is 10.5 R/hr.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Remove normal and excess letdown from service per C12.1. <ul style="list-style-type: none"><li>Closes all orifice isolation valves CV-31325, CV-31326, and CV-31327.</li></ul>
<b>Standard:</b>	Closes all orifice isolation valves CV-31325, CV-31326, and CV-31327.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

RC-15S, Initial Response to RCS High Activity, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>Y</u>	<b>Remove</b> normal and excess letdown from service per C12.1. <ul style="list-style-type: none"><li>• Closes both normal letdown loop isolation valves: CV-31226 and CV-31255</li></ul>
<b>Standard:</b>	Closes both normal letdown loop isolation valves: CV-31226 and CV-31255
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	<b>Transfer</b> speed control for inservice charging pump operating in AUTOMATIC to MANUAL per C7, "Reactor Control System."
<b>Standard:</b>	Places transfer switch in AUTO-BALANCE. Adjusts manual knob for 0 deviation on the deviation meter. Places transfer switch in MANUAL.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	<b>Remove</b> normal and excess letdown from service per C12.1. <ul style="list-style-type: none"><li>• Reduces charging pump speed to minimum.</li></ul>
<b>Standard:</b>	Reduces charging to minimum. (Associated controllers at 0 for running pumps) Closes CV-31198, Chg Line Flow Cont. by lowering output of 1HC-142 to maintain seal injection flow to RCPs between 6-10 gpm.
<b>Evaluator Note:</b>	Uses the dial on 1HC-142 to set valve (CV-31198) position.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

RC-15S, Initial Response to RCS High Activity, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>Y</u>	<b>Remove</b> normal and excess letdown from service per C12.1. <ul style="list-style-type: none"><li>• Adjusts RCP seal injection flow to approximately 9.5 gpm</li></ul>
<b>Standard:</b>	Positions CV-31198, Chg Line Flow Cont. by adjusting output of 1HC-142 to establish seal injection flow to RCPs between 9-10 gpm.
<b>Evaluator Note:</b>	Uses the dial on 1HC-142 to set valve (CV-31198) position.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	<b>Remove</b> normal and excess letdown from service per C12.1. <ul style="list-style-type: none"><li>• Stops one charging pump.</li></ul>
<b>Standard:</b>	One and only one charging pump is running.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	<b>Remove</b> normal and excess letdown from service per C12.1. <ul style="list-style-type: none"><li>• Adjusts RCP seal injection flow to 6-10 gpm/pump.</li></ul>
<b>Standard:</b>	Positions CV-31198, Chg Line Flow Cont. by adjusting output of 1HC-142 to establish seal injection flow to RCPs between 6-10 gpm.
<b>Evaluator Note:</b>	Uses the dial on 1HC-142 to set valve (CV-31198) position.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	<b>Remove</b> normal and excess letdown from service per C12.1. <ul style="list-style-type: none"><li>Place LD press control in manual and <b>set</b> at approx 50% open.</li></ul>
<b>Standard:</b>	Place controller 1HC135A in MANUAL. Use small knob to set output at 50%.
<b>Evaluator Note:</b>	<b>Also labeled CV-31203, Letdown pressure cont.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	If desired, place excess letdown in service.
<b>Standard:</b>	<b>Excess letdown is NOT placed in service.</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

SATISFACTORY  UNSATISFACTORY

<b>Performance Step:</b> Critical <u>N</u>	Notify duty chemist that purification is removed from service.
<b>Standard:</b>	Candidate contacts duty chemist or requests SS contact duty chemist.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	If alternate letdown is required, then refer to C12.1 AOP4.
<b>Standard:</b>	Either checks with SS or starts to implement C12.1 AOP4.
<b>Evaluator Cue:</b>	<b>If asked, state: "Alternate letdown is being handled by the Unit 2 LEAD using C12.1 AOP4."</b>
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Place Unit 1 in cold shutdown condition.
<b>Standard:</b>	Inform SS to initiate reactor shutdown to CSD.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** When plant shutdown requirement has been passed to the SS, inform examinee the JPM is complete.

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

## SIMULATOR SETUP

### INSTRUCTOR GUIDE:

- Initialize the simulator to IC-10
- Pull fuses on R-4
- Place WO sticker on 1R-4.      A CARD ON THE PANEL FOR R-4 WILL GIVE BETTER INDICATION THAT R-4 IS O.O.S.
- Insert I/O's.
- Begin the JPM.

## I/O SUMMARY

<u>REL. ORDER</u>	<u>LINE</u>	<u>ENTRY CODE</u>	<u>ENTRY DESCRIPTION</u>
	1	47022:0108W    CW	Train B RD Alarm
	2	R09-LRH        ON	High Alarm R-9
	3	R09-M1        100	R-9 Meter

## **TURNOVER SHEET**

**INITIAL CONDITIONS:**

- Unit 1 at 100% reactor power.
- Rad monitor R-4 is OOS (charging pump area monitor).
- You are the LEAD.

**INITIATING CUES (IF APPLICABLE):**

- You are to respond to events as appropriate.

**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
92. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
93. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
94. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
95. Does the performance steps accurately reflect trainee’s actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
96. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
97. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
98. 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"/>
99. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
100. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
101. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
102. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
103. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
104. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Validation Personnel /Date	Validation Personnel/Date

	<b>JOB PERFORMANCE MEASURE (JPM)</b>
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**SITE:** **Prairie Island**

**TASK TITLE:** **RESPOND TO CONDENSER HIGH PRESSURE**

**JPM NUMBER:** **ARS-1** **REV.** **2003 ILT NRC**

**RELATED PRA INFORMATION:** **PRA Identified Task**  
**This provides 10.3% CDF Reduction if performed correctly.**

**TASK NUMBERS:**

**K/A NUMBERS:** **054.AA1.08 / 054.AA2.02**

**APPLICABLE METHOD OF TESTING:**

Discussion:  Simulate/walkthrough:  Perform:

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

Time for Completion: 15 Minutes Time Critical: YES

Alternate Path / Faulted: NO

**TASK APPLICABILITY:** SRO, RO

<b>Developed by:</b>	<b>Dennis Westphal</b>	<b>7/14/03</b>
	Instructor	Date
<b>Validated by:</b>	<b>Paul Cooper</b>	<b>08/15/2003</b>
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>		
	Training Supervisor	Date

JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

<b>COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).</b>

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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- A large break LOCA has occurred on Unit 1.
- All actions in 1E-0 performed to TRANSITION to 1E1.
- All actions in 1FR-Z.1 were performed before TRANSITION to 1E1 was made.
- All actions in 1E-1 were completed through and including Step 6.
- RWST level has decreased to 32%.
- SS has directed TRANSITION to 1ES-1.2 to transfer ECCS to recirculation.

**INITIATING CUES (IF APPLICABLE):**

- The Unit 1 SS directs you to continue with 1ES-1.2 starting at step 2, and place Train “A” ECCS in the recirculation mode.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** None

**General References:** 1ES-1.2

**Task Standards:** Train A safeguard equipment in recirculation mode.

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

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

**NOTE:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

**Performance Step:** Critical Y Reset SI

**Standard:** Both RESET pushbuttons are pushed.

**Evaluator Note:** Should turn annunciator 47014-0504 on and annunciator 47014-0604 off.

**Performance:** SATISFACTORY  UNSATISFACTORY

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

**Performance Step:** Critical Y Reset containment spray.

**Standard:** Both RESET switches are operated: CS-46001 and CS-46065.

**Evaluator Note:** Should turn annunciator 47019-0103 off.

**Performance:** SATISFACTORY  UNSATISFACTORY

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

<b>Performance Step:</b> Critical <u>N</u>	Check both trains of safeguards pumps available for recirculation
<b>Standard:</b>	Verifies both trains of safeguards pumps are running.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Stop 11 RHR pump.
<b>Standard:</b>	CS-46184 to stop position; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Stop 11 SI pump.
<b>Standard:</b>	CS-46178 to stop position; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Stop 11 containment spray pump.
<b>Standard:</b>	CS-46008 to stop; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Close RWST to 11 RHR pump suction MV-32084.
<b>Standard:</b>	CS-46202 to close; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Close SI test line to RWST valves MV-32202 and MV-32203.
<b>Standard:</b>	CS-46204 and CS-46205 to close position; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify RHR to reactor vessel nozzle valves MV-32064 and MV-32065 open.
<b>Standard:</b>	CS-46223 and CS-46224 red indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Align CC to RHR Heat Exchanger for Idle RHR Train, Opens MV-32093
<b>Standard:</b>	CS-46023 red indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

SI-11S, Transfer SI to Recirculation Mode, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>N</u>	Check Sump B level adequate to support RHR Pump Operation Sump B level – 100% OR Containment level greater than 1.75 feet
<b>Standard:</b>	Checks Sump B levels on indicators 1LI725 and 1LI726 <b>OR</b> Containment levels on indicators 1LI727 and 1LI728.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Verify RWST to RHR isolation valves for 11 RHR pump are CLOSED, MV-32084.
<b>Standard:</b>	Examinee checks red light off, green light on for CS-46202.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Check Sump B to RHR MV bonnets vented per Attachment K.
<b>Standard:</b>	Examinee asks Aux Building Operator if bonnets vented.
<b>Evaluator Note:</b>	Operator may refer to Step 1 as complete.
<b>Evaluator Cue:</b>	Aux Building Operator reports that bonnets vented per Attachment K.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Open Sump B to RHR isolation valves for 11 RHR pump MV-32075 <u>AND</u> MV-32077.
<b>Standard:</b>	Positions CS-44210 and CS-46208 to OPEN; red light on for both switches.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

SI-11S, Transfer SI to Recirculation Mode, Rev. 2003 ILT NRC

<b>Performance Step:</b> Critical <u>N</u>	Check if 12 containment spray pump can be stopped. <ul style="list-style-type: none"><li>• Check 12 Containment Spray Pump running</li><li>• Verify containment Pressure &lt;20psig</li><li>• Stop 12 CS Pump</li></ul>
<b>Standard:</b>	CS-46009 to stop; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Verify Sump B to RHR isolation valves for 11 RHR pump are FULL OPEN, MV-32075 <u>AND</u> MV-32077.
<b>Standard:</b>	Red light on and green light off for CS-44210 and CS-46208.
<b>Evaluator Note:</b>	Examinee SHALL not proceed until both valves are full open.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Start 11 RHR pump.
<b>Standard:</b>	CS-46184 to start; red indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Check RCS pressure less than 125 psig.
<b>Standard:</b>	<ul style="list-style-type: none"><li>• Correctly determines whether pressure is greater than 125 psig using 1PI-709, 1PI-710, ERCS or 1PR-420 pressure.</li><li>• Transitions to step 14.</li></ul>
<b>Evaluator Cue:</b>	If indicated RCS pressure is less than 125 psig, tell examinee, "RCS pressure is greater than 125 psig".
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Close 11 SI pump suction isolation valve MV-32162.
<b>Standard:</b>	CS-46193 to close; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Check RHR pressure less than 210 psig.
<b>Standard:</b>	Examinee checks RHR pressure less than 210 psig on 1PI-629.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Open 11 RHR pump supply to 11 SI pump suction MV-32206.
<b>Standard:</b>	CS-46206 to open; red indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Start 11 SI pump.
<b>Standard:</b>	CS-46178 to start; red indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Verify SI flow.
<b>Standard:</b>	SI flow indicated on 1FI-925.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Close 11 RHR pump supply to reactor vessel nozzle MV-32064.
<b>Standard:</b>	CS-46223 to close; green indicating light on.
<b>Performance:</b>	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
<b>Comments:</b>	_____

**Terminating Cues:** 11 SI pump being supplied from 11 RHR pump via sump B, RHR supply to reactor vessel valve MV-32064 closed.

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

## SIMULATOR SETUP

### Instructor Guide:

- Initialize the simulator to IC-10.
- Insert code lines to prepare for transfer to recirc (Attachment K) **(Relative Order 0)**.
- Insert malfunction RC07A at 15% severity, cold leg LOCA **(Relative Order 1)**.
- Manually actuate containment spray when containment pressure exceeds 17 psig.
- Perform steps of E-0, E-1 through step 6.
- Lower RWST level to 33% (Relative Order 2) after Containment water level reaches 2 feet.
- Freeze the simulator
- 
- Do not come out of freeze until just before the first control board manipulation.

RELATIVE ORDER	TYPE	CODE	SEVERITY	ENTRY DESCRIPTION
0	Remote	WD104	ANN SUMP	WL-87-1 aligned to annulus sump
0	Remote	WD105	ANN SUMP	WL-87-2 aligned to annulus sump
0	Remote	CH127	OFF	Rad Waste Bldg Vent Stopped
0	Remote	CC111	Removed	11 CC Travel Stops Removed
0	Remote	CC112	Removed	12 CC Travel Stops Removed
0	Remote	SI107	NRML	SI suction from RHR BKR ON
0	Remote	SI108	NRML	SI suction from RHR BKR ON
1	Malfunction	RC07A	15	Cold leg LOCA
2	Remote	SI115	33	Puts RWST to 33%

## **TURNOVER SHEET**

### **INITIAL CONDITIONS:**

- A large break LOCA has occurred on Unit 1.
- All actions in 1E-0 performed to TRANSITION to 1E1.
- All actions in 1FR-Z.1 were performed before TRANSITION to 1E1 was made.
- All actions in 1E-1 were completed through and including Step 6.
- RWST level has decreased to 32%.
- SS has directed TRANSITION to 1ES-1.2 to transfer ECCS to recirculation.

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

The Unit 1 SS directs you to continue with 1ES-1.2 starting at step 2, and place Train "A" ECCS in the recirculation mode.

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
105. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
106. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
107. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
108. Does the performance steps accurately reflect trainee’s actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
109. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
110. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
111. 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"/>
112. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
113. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
114. Have the performance steps been identified and typed (Critical / Sequence / Time Critical) appropriately?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
115. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
116. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
117. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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

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

	<b>JOB PERFORMANCE MEASURE (JPM)</b>
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**SITE:** **Prairie Island**

**TASK TITLE:** **RESPOND TO CONDENSER HIGH PRESSURE**

**JPM NUMBER:** **ARS-1** **REV.** **2003 ILT NRC**

**RELATED PRA INFORMATION:** **None**

**TASK NUMBERS:**

**K/A NUMBERS:** **054.AA1.08 / 054.AA2.02**

**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 / Faulted: YES

**TASK APPLICABILITY:** SRO, RO

Additional signatures may be added as needed.

<b>Developed by:</b>	<b>Dennis Westphal</b>	<b>7/14/03</b>
	Instructor	Date
<b>Validated by:</b>	<b>Paul Cooper</b>	<b>7/14/03</b>
	Validation Instructor (See JPM Validation Checklist, Attachment 1)	Date
<b>Approved by:</b>	Training Supervisor	Date

JPM Number: ARS-1

JPM Title: RESPOND TO CONDENSER HIGH PRESSURE

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

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

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

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

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

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

PERFORMANCE RESULTS:

SAT:

UNSAT:

COMMENTS/FEEDBACK: (Comments shall be made for any steps graded unsatisfactory).


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

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

JPM BRIEFING/TURNOVER

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

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

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

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

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

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

**INITIAL CONDITIONS:**

- The control rods failed to insert following an attempted Reactor Trip.
- FR-S.1 ATWS procedure is in effect.
- Steps 1, 2 and 3 of FR-S.1 have been completed.

**INITIATING CUES (IF APPLICABLE):**

- Perform step 4 of FR-S.1.

**JPM PERFORMANCE INFORMATION**

**Required Materials:** None  
**General References:** FR-S.1  
**Task Standards:** Initiate emergency boration IAW FR-S.1

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

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

**NOTE:** Critical steps are marked with a “Y” below the performance step number. Failure to meet the standard for any critical step shall result in failure of this JPM.

<b>Performance Step:</b> Critical <u>N</u>	Attempts normal boration
<b>Standard:</b>	Examinee attempts normal boration: - Places make up mode selector switch to borate - Sets boric acid integrator to desired value - Sets boric acid flow control to desired value - Places control switch to start
<b>Evaluator Cue:</b>	Normal boration will be unsuccessful. Start switch fails to initiate.
<b>Performance:</b>	SATISFACTORY ____ UNSATISFACTORY ____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Examinee transitions to RNO to FRS.1 and shifts running BA pump to fast.
<b>Standard:</b>	Running pump shifted to FAST (CS-46163 or CS-46164) and started (CS-46161 or CS-46162)
<b>Evaluator Cue:</b>	CS-46161 or CS-46162 FAST red light ON.
<b>Performance:</b>	SATISFACTORY ____ UNSATISFACTORY ____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>N</u>	Open in-service BAST recirc valve to 50%
<b>Standard:</b>	In-service BAST recirc valve (CV-31195 or CV-31197) opened to 50% (1HC-105 or 1HC-104)
<b>Evaluator Cue:</b>	In-service BAST recirc valve at 48%-52% open.
<b>Performance:</b>	SATISFACTORY ____ UNSATISFACTORY ____
<b>Comments:</b>	_____

<b>Performance Step:</b> Critical <u>Y</u>	Open emergency boration motor valve.
<b>Standard:</b>	MV-32086 opened (CS-46297).
<b>Evaluator Cue:</b>	CS-46297 red light in ON. Integrator begins to count (clicks).
<b>Performance:</b>	SATISFACTORY _ UNSATISFACTORY _____
<b>Comments:</b>	_____

**Terminating Cues:** Emergency boration established.

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

## SIMULATOR SET UP

- Initialize to IC-10
- Insert any ATWS malfunction
- Insert IO D1- 46301C close
- Insert IO D1- 46281: IN
- Run for 1 min.
- Freeze

Provide examinee with initial conditions and cue

Remove simulator from freeze

## **TURNOVER SHEET**

**INITIAL CONDITIONS:**

- The control rods failed to insert following a Unit 1 reactor trip.
- FR-S.1 ATWS procedure is in effect.
- Steps 1, 2 and 3 of FR-S.1 have been completed.

**INITIATING CUES (IF APPLICABLE):**

- Perform step 4 of FRS.1.

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

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

REVIEW STATEMENTS	YES	NO	N/A
118. Are all items on the signature page filled in correctly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
119. Has the JPM been reviewed and validated by SMEs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
120. Can the required conditions for the JPM be appropriately established in the simulator if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
121. Does the performance steps accurately reflect trainee's actions in accordance with plant procedures?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
122. Is the standard for each performance item specific as to what controls, indications and ranges are required to evaluate if the trainee properly performed the step?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
123. Has the completion time been established based on validation data or incumbent experience?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
124. 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"/>
125. Is the Licensee level appropriate for the task being evaluated if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
126. Is the K/A appropriate to the task and to the licensee level if required?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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128. Have all special tools and equipment needed to perform the task been identified and made available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
129. Are all references identified, current, accurate, and available to the trainee?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
130. Have all required cues (as anticipated) been identified for the evaluator to assist task completion?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

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 Validation Personnel /Date

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