

Control Room JPM a

	JOB PERFORMANCE MEASURE (JPM)
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SITE: PRAIRIE ISLAND

JPM TITLE: 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK

JPM NUMBER: RC-24SF **REV.** 0

RELATED PRA INFORMATION: ISLOCA (4.4%)

TASK NUMBERS / TASK TITLE(S): CRO 008 ATI 00 00 011 / RESPONSE TO LEAKAGE INTO THE CC SYSTEM

K/A NUMBERS: 003 A4.08 (3.2/2.9)

APPLICABLE METHOD OF TESTING:

Discussion: Simulate/walkthrough: Perform:

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

Time for Completion: 14 Minutes Time Critical: NO

Alternate Path: YES

TASK APPLICABILITY: SRO: RO: NLO

Additional site-specific signatures may be added as desired.

Developed by:	Shawn Sarrasin	1/19/2016
	Developer	Date
Validated by:	Justin Hasner	1/20/2016
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	Mike Petersen	3/25/2016
	Training Supervisor	Date

**RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM a**

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- Two 40 gpm letdown orifices are in service.

INITIATING CUE:

- The SS directs you to remove CV-31325 letdown orifice from service per Section 6.11 of 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION – UNIT 1.

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM a

JPM PERFORMANCE INFORMATION

Required Materials: NONE

General 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION-UNIT 1
F 1C14 AOP2, LEAKAGE INTO THE COMPONENT COOLING SYSTEM
e C47015-0109, 12 RCP THERMAL BARRIER CC WATER HI FLOW
f C7, REACTOR CONTROL SYSTEM
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Task Examinee removes one letdown orifice from service and isolates Component
S Cooling to 12 RCP Thermal Barrier Heat Exchanger.
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Start Time: _____

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

Performance Step:	1C12.1, step 6.11.1
Critical <u>N</u>	IF desired, THEN place 1HC-135A, LTDN PRESS CONT CV-31203, to MANUAL.
Standard:	Examinee places 1HC-135A in MANUAL or leaves 1HC-135A in AUTO.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM a

Performance Step:	1C12.1, step 6.11.2
Critical <u>N</u>	Maintain letdown pressure less than 445 psig to prevent lifting the low pressure letdown relief valve.
Standard:	Examinee maintains letdown pressure less than 445 psig.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C12.1, step 6.11.3
Critical <u>Y</u>	CLOSE the desired letdown orifice isolation valve: <ul style="list-style-type: none"> • CV-31325, LTDN ORIFICE ISOL 40 GPM, using CS-46170 OR • CV-31326, LTDN ORIFICE ISOL 40 GPM, using CS-46174 OR • CV-31327, LTDN ORIFICE ISOL 80 GPM, using CS-46174
Standard:	Examinee closes CV-31325 using CS-46170.
Evaluator Note:	If examinee closes CV-31326 instead of CV-31327, then the task will still be met and it will NOT constitute a JPM failure.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C12.1, step 6.11.4
Critical <u>N</u>	Transfer the inservice charging pump from AUTOMATIC to MANUAL speed control per C7, Reactor Control System.
Standard:	Examinee transfers 11 Charging Pump to manual.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM a

Performance Step:	1C12.1, step 6.11.5
Critical <u>N</u>	Lower charging pump speed while adjusting 1HC-142, CHG LINE FLOW CONT, to maintain seal injection flow at 8 gpm, until charging flow is about 30 gpm.
Standard:	Examinee reduces charging flow to approximately 30 gpm.
Evaluator Note:	When examinee has established approximately 30 gpm charging flow OR at evaluator discretion, enter Trigger 1, 12 RCP Thermal Barrier Failure.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C12.1, step 6.11.6
Critical <u>N</u>	Transfer one of the inservice charging pumps from MANUAL to AUTOMATIC speed control per C7, Reactor Control System.
Standard:	Examinee transfers 11 or 12 Charging Pump to automatic.
Evaluator Note:	If examinee transitions to 1C14 AOP2 or C47015-0109, then this step is NOT applicable.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/>
Comments:	_____

ALTERNATE PATH STARTS HERE

Performance Step:	1C14 AOP2, Step 2.4.1.A OR C47015-0109, Step 1
Critical <u>Y</u>	Verify CV-31246, 12 RC PUMP THERMAL BARRIER CLNT OUTL, using CS-46026, is CLOSED.
Standard:	Examinee closes CV-31246 using CS-46026.
Evaluator Note:	If the examinee places CS-46026 in the closed position, then AUTO Trigger 2 will be entered to allow CV-31246 to close.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

**RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM a**

Terminating Cues: **When examinee has removed one letdown orifice from service and isolated Component Cooling to 12 RCP Thermal Barrier Heat Exchanger, then this JPM is complete.**

Stop Time: _____

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM a

ATTACHMENT 2

JPM Number: RC-24SF

JPM Title: 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM a

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- Two 40 gpm letdown orifices are in service.

INITIATING CUE:

- The SS directs you to remove CV-31325 letdown orifice from service per Section 6.11 of 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION – UNIT 1.

Control Room JPM b

	JOB PERFORMANCE MEASURE (JPM)
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SITE: PRAIRIE ISLAND

JPM TITLE: ESTABLISH RHR FLOW TO THE REACTOR VESSEL

JPM NUMBER: RH-12S REV. 0

RELATED PRA INFORMATION: LOCA (27.3%)
11 RHR PUMP
12 RHR PUMP

TASK NUMBERS / TASK TITLE(S): CRO 301 001 06 01 000 / REACTOR TRIP OR SAFETY INJECTION

K/A NUMBERS: 006 A4.04 (3.7*/3.6)

APPLICABLE METHOD OF TESTING:

Discussion: Simulate/walkthrough: Perform:

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

Time for Completion: 6 Minutes Time Critical: NO

Alternate Path: NO

TASK APPLICABILITY: SRO: RO: NLO

Additional site-specific signatures may be added as desired.

Developed by:	Shawn Sarrasin	1/18/2016
	Developer	Date
Validated by:	Justin Hasner	1/20/2016
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	Mike Petersen	3/25/2016
	Training Supervisor	Date

RH-12S, ESTABLISH RHR FLOW TO THE REACTOR VESSEL, REV 0
Control Room JPM b

INITIAL CONDITIONS:

- A reactor trip and safety injection has occurred on Unit 1.
- 11 SI Pump is out of service.

INITIATING CUES:

- The Shift Supervisor directs you to perform Attachment L to 1E-0, SI Alignment Verification.

RH-12S, ESTABLISH RHR FLOW TO THE REACTOR VESSEL, REV 0
Control Room JPM b

JPM PERFORMANCE INFORMATION

Required Materials: 1E-0 ATTACHMENT L

General 1E-0, REACTOR TRIP OR SAFETY INJECTION

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Task Examinee establishes RHR flow to the reactor vessel.

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Start Time: _____

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

RH-12S, ESTABLISH RHR FLOW TO THE REACTOR VESSEL, REV 0
Control Room JPM b

Performance Step:	1E-0 Attachment L, Step 1.a
Critical <u>N</u>	Both trains of SI actuated: <ul style="list-style-type: none"> • Both RHR pumps – RUNNING -OR- <ul style="list-style-type: none"> • Both SI pumps - RUNNING
Standard:	Examinee identifies that no SI pumps are running and no RHR pumps are running.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1E-0 Attachment L, Step 1.a RNO
Critical <u>N</u>	Manually actuate SI.
Standard:	Examinee attempts to manually actuate SI by turning CS-46180 or CS-46408.
Evaluator's Note:	SI is already actuated. Turning CS-46180 or CS-46408 will have no effect.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1E-0 Attachment L, Step 1.b
Critical <u>N</u>	"SI NOT READY" lights – NOT LIT
Standard:	Examinee determines 44102-2A, 11 SI PUMP NOT READY, light is lit due to 11 SI Pump being out of service and no action is needed.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RH-12S, ESTABLISH RHR FLOW TO THE REACTOR VESSEL, REV 0
Control Room JPM b

Performance Step:	1E-0 Attachment L, Step 1.c
Critical <u>N</u>	“SI ACTIVE” lights – LIT FOR PLANT CONDITIONS
Standard:	Examinee determines the following lights on panel 44103 are not lit and should be: <ul style="list-style-type: none"> • 1B – 12 SI PUMP RUNNING • 3A – 11 RHR PUMP RUNNING • 3B – 12 RHR PUMP RUNNING • 3C – RH TO RV 8803A OPEN • 3D – RH TO RV 8803B OPEN
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1E-0 Attachment L, Step 1.c RNO
Critical <u>Y</u>	Manually align components as necessary.
Standard:	Examinee starts: <ul style="list-style-type: none"> • 11 RHR pump using CS-46184 -AND/OR- • 12 RHR pump using CS-46185
Evaluator’s Note:	If attempted, 12 SI Pump will not start.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RH-12S, ESTABLISH RHR FLOW TO THE REACTOR VESSEL, REV 0
Control Room JPM b

Performance Step:	1E-0 Attachment L, Step 1.c RNO
Critical <u>Y</u>	Manually align components as necessary.
Standard:	Examinee opens: <ul style="list-style-type: none"> • MV-32064, RHR to RX VSL, using CS-46223. -AND/OR- • MV-32065, RHR to RX VSL, using CS-46224.
Evaluator's Note:	The performance of this step is considered satisfactory when RHR flow to the reactor vessel has been established.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Terminating Cues: When the examinee has established RHR flow to the reactor vessel, then this JPM is complete.

Stop Time: _____

RH-12S, ESTABLISH RHR FLOW TO THE REACTOR VESSEL, REV 0
Control Room JPM b

ATTACHMENT 2

JPM Number: RH-12S

JPM Title: ESTABLISH RHR FLOW TO THE REACTOR VESSEL

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

**RH-12S, ESTABLISH RHR FLOW TO THE REACTOR VESSEL, REV 0
Control Room JPM b**

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- A reactor trip and safety injection has occurred on Unit 1.
- 11 SI Pump is out of service.

INITIATING CUES:

- The Shift Supervisor directs you to perform Attachment L to 1E-0, SI Alignment Verification.

Control Room JPM c

	JOB PERFORMANCE MEASURE (JPM)
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SITE: PRAIRIE ISLAND

JPM TITLE: 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK

JPM NUMBER: RC-24SF **REV.** 0

RELATED PRA INFORMATION: ISLOCA (4.4%)

TASK NUMBERS / TASK TITLE(S): CRO 008 ATI 00 00 011 / RESPONSE TO LEAKAGE INTO THE CC SYSTEM

K/A NUMBERS: 003 A4.08 (3.2/2.9)

APPLICABLE METHOD OF TESTING:

Discussion: Simulate/walkthrough: Perform:

EVALUATION LOCATION: In-Plant: Control Room:

Simulator: Other:

Lab:

Time for Completion: 14 Minutes Time Critical: NO

Alternate Path: YES

TASK APPLICABILITY: SRO: RO: NLO

Additional site-specific signatures may be added as desired.

Developed by:	Shawn Sarrasin	1/19/2016
	Developer	Date
Validated by:	Justin Hasner	1/20/2016
	Validator	Date
	(See JPM Validation Checklist, Attachment 1)	
Approved by:	Mike Petersen	3/25/2016
	Training Supervisor	Date

**RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM c**

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- Two 40 gpm letdown orifices are in service.

INITIATING CUE:

- The SS directs you to remove CV-31325 letdown orifice from service per Section 6.11 of 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION – UNIT 1.

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM c

JPM PERFORMANCE INFORMATION

Required Materials: NONE

General 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION-UNIT 1
F 1C14 AOP2, LEAKAGE INTO THE COMPONENT COOLING SYSTEM
e C47015-0109, 12 RCP THERMAL BARRIER CC WATER HI FLOW
f C7, REACTOR CONTROL SYSTEM
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Task Examinee removes one letdown orifice from service and isolates Component
S Cooling to 12 RCP Thermal Barrier Heat Exchanger.
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Start Time: _____

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

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM c

Performance Step:	1C12.1, step 6.11.1
Critical <u>N</u>	IF desired, THEN place 1HC-135A, LTDN PRESS CONT CV-31203, to MANUAL.
Standard:	Examinee places 1HC-135A in MANUAL or leaves 1HC-135A in AUTO.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C12.1, step 6.11.2
Critical <u>N</u>	Maintain letdown pressure less than 445 psig to prevent lifting the low pressure letdown relief valve.
Standard:	Examinee maintains letdown pressure less than 445 psig.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C12.1, step 6.11.3
Critical <u>Y</u>	CLOSE the desired letdown orifice isolation valve: <ul style="list-style-type: none"> • CV-31325, LTDN ORIFICE ISOL 40 GPM, using CS-46170 OR • CV-31326, LTDN ORIFICE ISOL 40 GPM, using CS-46174 OR • CV-31327, LTDN ORIFICE ISOL 80 GPM, using CS-46174
Standard:	Examinee closes CV-31325 using CS-46170.
Evaluator Note:	If examinee closes CV-31326 instead of CV-31327, then the task will still be met and it will NOT constitute a JPM failure.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM c

Performance Step:	1C12.1, step 6.11.4
Critical <u>N</u>	Transfer the inservice charging pump from AUTOMATIC to MANUAL speed control per C7, Reactor Control System.
Standard:	Examinee transfers 11 Charging Pump to manual.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C12.1, step 6.11.5
Critical <u>N</u>	Lower charging pump speed while adjusting 1HC-142, CHG LINE FLOW CONT, to maintain seal injection flow at 8 gpm, until charging flow is about 30 gpm.
Standard:	Examinee reduces charging flow to approximately 30 gpm.
Evaluator Note:	When examinee has established approximately 30 gpm charging flow OR at evaluator discretion, enter Trigger 1, 12 RCP Thermal Barrier Failure.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C12.1, step 6.11.6
Critical <u>N</u>	Transfer one of the inservice charging pumps from MANUAL to AUTOMATIC speed control per C7, Reactor Control System.
Standard:	Examinee transfers 11 or 12 Charging Pump to automatic.
Evaluator Note:	If examinee transitions to 1C14 AOP2 or C47015-0109, then this step is NOT applicable.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/> NOT APPLICABLE <input type="checkbox"/>
Comments:	_____

ALTERNATE PATH STARTS HERE

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM c

Performance Step:	1C14 AOP2, Step 2.4.1.A OR C47015-0109, Step 1
Critical <u>Y</u>	Verify CV-31246, 12 RC PUMP THERMAL BARRIER CLNT OUTL, using CS-46026, is CLOSED.
Standard:	Examinee closes CV-31246 using CS-46026.
Evaluator Note:	If the examinee places CS-46026 in the closed position, then AUTO Trigger 2 will be entered to allow CV-31246 to close.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Terminating Cues: When examinee has removed one letdown orifice from service and isolated Component Cooling to 12 RCP Thermal Barrier Heat Exchanger, then this JPM is complete.

Stop Time: _____

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM c

ATTACHMENT 2

JPM Number: RC-24SF

JPM Title: 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

RC-24SF, 12 RCP THERMAL BARRIER HEAT EXCHANGER LEAK, REV 0
Control Room JPM c

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- Two 40 gpm letdown orifices are in service.

INITIATING CUE:

- The SS directs you to remove CV-31325 letdown orifice from service per Section 6.11 of 1C12.1, LETDOWN, CHARGING & SEAL WATER INJECTION – UNIT 1.

FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d

	JOB PERFORMANCE MEASURE (JPM)
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SITE: PRAIRIE ISLAND

JPM TITLE: RESPOND TO FWRV CONTROL FAILURE AND ATWS

JPM NUMBER: FW-5SF REV. 0

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 059 ATI 00 00 007 / TRANSFER SGWLC FROM BYPASS TO MAIN VALVES

K/A NUMBERS: 059 A2.11 (3.0*/3.3*)

APPLICABLE METHOD OF TESTING:

Discussion: Simulate/walkthrough: Perform:

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

Time for Completion: 11 Minutes Time Critical: NO

Alternate Path: YES

TASK APPLICABILITY: SRO: RO: NLO

Additional site-specific signatures may be added as desired.

Developed by:	Shawn Sarrasin	1/19/2016
	Developer	Date
Validated by:	Justin Hasner	1/20/2016
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	Mike Petersen	3/25/2016
	Training Supervisor	Date

FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d

INITIAL CONDITIONS:

- Unit 1 is at 90% power due to failure of 12 Main Feed Regulating Valve.
- Repairs to 12 Main Feed Regulating Valve is complete.
- CV-31128, B MAIN FW, is in MANUAL.
- CV-31370, B BYPASS FW, is in AUTO.
- An extra operator is responding to Heater Drain alarms on Panel F.

INITIATING CUES:

- The SS directs you to perform steps 5.4.3.A through 5.4.3.E of 1C28.2, UNIT 1 FEEDWATER SYSTEM, to place CV-31128, B MAIN FW, in AUTOMATIC control.

FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d

JPM PERFORMANCE INFORMATION

Required Materials: NONE

General 1C28.2, UNIT 1 FEEDWATER SYSTEM
1E-0, REACTOR TRIP OR SAFETY INJECTION
C47017-0305, 12 STM GEN LO-LO LVL REACTOR TRIP

Task Examinee places the 12 Main FRV in automatic control and responds to a Loss of Feedwater ATWS by manually inserting control rods.

Start Time: _____

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

Performance Step:	1C28.2, Step 5.4.3.A
Critical <u>N</u>	Verify SG level is being controlled at program level.
Standard:	Examinee determines 12 SG level is at 43%.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d

Performance Step: Critical <u>Y</u>	1C28.2, Step 5.4.3.B Place the associated Feedwater bypass valve in "MAN": <ul style="list-style-type: none"> • 1HC-480, A BYPASS FW CV-31369 <li align="center"><u>OR</u> • 1HC-481, B BYPASS FW CV-31370
Standard:	Examinee places 1HC-481 in manual.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>Y</u>	1C28.2, Step 5.4.3.C Place the affected main feedwater regulating valve in "AUTO": <ul style="list-style-type: none"> • 1HC-466, A MAIN FW CV-31127 <li align="center"><u>OR</u> • 1HC-476, B MAIN FW CV-31128
Standard:	Examinee places 1HC-476 in auto.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>Y</u>	1C28.2, Step 5.4.3.D Slowly CLOSE the bypass valve while observing the main valve maintain program SG level: <ul style="list-style-type: none"> • 1HC-480, A BYPASS FW CV-31369 <li align="center"><u>OR</u> • 1HC-481, B BYPASS FW CV-31370
Standard:	Examinee closes CV-31370 using 1HC-481.
Evaluator Note:	When CV-31370 position is less than 20% open, AUTO Trigger 1 will insert to cause 12 Main FRV to fail closed.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d

Performance Step:	1C28.2, Step 5.4.3.E
Critical <u>N</u>	Verify SG level control maintaining program SG level.
Standard:	Examinee recognizes 12 SG is rapidly lowering.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

ALTERNATE PATH STARTS HERE

Performance Step:	C47017-0305, INITIAL ACTIONS
Critical <u>N</u>	Perform 1E-0, Reactor Trip or Safety Injection
Standard:	Examinee determines a Reactor Trip first out is received or determines one is eminent and transitions to 1E-0.
Evaluator Notes:	The reactor will fail to automatically trip.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1E-0, Step 1 RNO
Critical <u>N</u>	Manually trip reactor.
Standard:	Examinee performs the following: <ol style="list-style-type: none"> 1. Attempts to manually trip the reactor using the following: <ul style="list-style-type: none"> • CS-46450 on Panel C • CS-46331 on Panel D • CS-46447 on Panel E 2. Recognizes an ATWS condition 3. Transitions to 1FR-S.1.
Evaluator Notes:	<ul style="list-style-type: none"> • The reactor will fail to manually trip. • When CS-46450 or CS-46331 is placed in TRIP, AUTO Trigger 2 will insert to cause the main turbine to trip.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

**FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d**

Performance Step:	1FR-S.1, Step 1 RNO
Critical <u>Y</u>	If reactor will NOT trip, then either:
	<ul style="list-style-type: none"> • Verify automatic rod insertion <li align="center">-OR- • Manually insert control rods.
Standard:	Examinee places CS-46280, ROD BANK SELECTOR, in “MAN” and holds CS-46281, DIGITAL ROD CONTROL, in the “IN” position.
Evaluator Cue:	Inform the examinee the Unit 1 Lead RO has tripped the main turbine.
Evaluator Note:	Rods will fail to automatically insert.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Terminating Cues: **When the examinee has placed the 12 Main FRV in automatic control and responded to a Loss of Feedwater ATWS by manually inserting control rods, then this JPM is complete.**

Stop Time: _____

FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d

ATTACHMENT 2

JPM Number: FW-5SF

JPM Title: RESPOND TO A FWRV CONTROL FAILURE AND ATWS

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

FW-5SF, RESPOND TO A FWRV CONTROL FAILURE AND ATWS, REV. 0
Control Room JPM d

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 90% power due to failure of 12 Main Feed Regulating Valve.
- Repairs to 12 Main Feed Regulating Valve is complete.
- CV-31128, B MAIN FW, is in MANUAL.
- CV-31370, B BYPASS FW, is in AUTO.
- An extra operator is responding to Heater Drain alarms on Panel F.

INITIATING CUES:

- The SS directs you to perform steps 5.4.3.A through 5.4.3.E of 1C28.2, UNIT 1 FEEDWATER SYSTEM, to place CV-31128, B MAIN FW, in AUTOMATIC control.

Control Room JPM e

	JOB PERFORMANCE MEASURE (JPM)
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SITE: PRAIRIE ISLAND

JPM TITLE: ALTERNATE FAN COIL UNITS

JPM NUMBER: ZC-2S REV. 0

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 022 ATI 00 00 007 / CHANGE FAN COIL UNIT FAN SPEED

K/A NUMBERS: 022 A4.01 (3.6/3.6)

APPLICABLE METHOD OF TESTING:

Discussion: Simulate/walkthrough: Perform: EVALUATION LOCATION: In-Plant: Control Room: Simulator: Other: Lab: Time for Completion: 8 Minutes Time Critical: NOAlternate Path: NOTASK APPLICABILITY: SRO: RO: NLO

Additional site-specific signatures may be added as desired.

Developed by:	Shawn Sarrasin Developer	1/18/2016 Date
Validated by:	Justin Hasner Validator (See JPM Validation Checklist, Attachment 1)	1/20/2016 Date
Approved by:	Mike Petersen Training Supervisor	3/25/2016 Date

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0
Control Room JPM e

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- 11 and 13 CFCUs are running in FAST to the GAP/SUP.
- 12 and 14 CFCUs are running in SLOW to the DOME.

INITIATING CUES:

- The Shift Supervisor directs you to alternate Containment Fan Coil Units and discharge dampers per 1C19.2, Containment Ventilation Unit 1, to the following lineup:
 - 11 and 13 CFCUs running in SLOW to the DOME.
 - 12 and 14 CFCUs running in FAST to the GAP/SUP.

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0
Control Room JPM e
JPM PERFORMANCE INFORMATION

Required Materials: NONE

General 1C19.2, CONTAINMENT SYSTEM VENTILATION UNIT 1

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Task Examinee alternates Containment Fan Coil Units and discharge dampers to 11 S and 13 CFCUs running in SLOW to the DOME and 12 and 14 CFCUs running in t FAST to the GAP/SUP.

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Start Time: _____

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

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0
Control Room JPM e

Performance Step:	1C19.2 step 5.6.4.A.1
Critical <u>N</u>	Shift the desired fan coil units to SLOW by placing the control switch in "OFF" for 15 seconds.
	<ul style="list-style-type: none"> • CS-46018, 11 CNTMT FAN COIL UNIT • CS-46020, 12 CNTMT FAN COIL UNIT • CS-46019, 13 CNTMT FAN COIL UNIT • CS-46021, 14 CNTMT FAN COIL UNIT
Standard:	Examinee places CS-46018 and CS-46019 in "OFF" for at least 15 seconds.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C19.2 step 5.6.4.A.1
Critical <u>Y</u>	Shift the desired fan coil units to SLOW by placing the control switch in "SLOW."
	<ul style="list-style-type: none"> • CS-46018, 11 CNTMT FAN COIL UNIT • CS-46020, 12 CNTMT FAN COIL UNIT • CS-46019, 13 CNTMT FAN COIL UNIT • CS-46021, 14 CNTMT FAN COIL UNIT
Standard:	Examinee places CS-46018 and CS-46019 in "SLOW."
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	1C19.2 step 5.6.4.A.2
Critical <u>Y</u>	Align the fan coil unit discharge dampers as desired, observing Precaution 3.7.
	<ul style="list-style-type: none"> • CS-46440, 11 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS • CS-46441, 12 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS • CS-46442, 13 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS • CS-46443, 14 FCU DISCH TO CNTMT DOME/SUPPORT DMPRS
Standard:	Examinee places CS-46440 and CS-46442 in the DOME position and places CS-46441 and CS-46443 in the GAP/SUPPORT position.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0

Control Room JPM e

Performance Step: Critical <u>N</u>	1C19.2 step 5.6.4.A.3 Verify the associated white fan coil unit damper improper lights remain NOT LIT: <ul style="list-style-type: none"> • ML-440022-0101, 11 CNTMT FCU DISCH DMPRS IMPROPER • ML-440022-0102, 12 CNTMT FCU DISCH DMPRS IMPROPER • ML-440022-0201, 13 CNTMT FCU DISCH DMPRS IMPROPER • ML-440022-0202, 14 CNTMT FCU DISCH DMPRS IMPROPER
Standard:	Examinee verifies all lights on ML-440022 are not lit.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>N</u>	1C19.2 step 5.6.4.A.4 Shift the desired fan coil units to FAST by placing the control switch in "OFF for at least one (1) second: <ul style="list-style-type: none"> • CS-46018, 11 CNTMT FAN COIL UNIT • CS-46020, 12 CNTMT FAN COIL UNIT • CS-46019, 13 CNTMT FAN COIL UNIT • CS-46021, 14 CNTMT FAN COIL UNIT
Standard:	Examinee places CS-46020 and CS-46021 in "OFF" for at least one second.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>Y</u>	1C19.2 step 5.6.4.A.4 Shift the desired fan coil units to FAST by placing the control switch in "FAST:" <ul style="list-style-type: none"> • CS-46018, 11 CNTMT FAN COIL UNIT • CS-46020, 12 CNTMT FAN COIL UNIT • CS-46019, 13 CNTMT FAN COIL UNIT • CS-46021, 14 CNTMT FAN COIL UNIT
Standard:	Examinee places CS-46020 and CS-46021 in "FAST."
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Terminating Cues: When the examinee has alternated Containment Fan Coil Units and discharge dampers to 11 and 13 CFCUs running in SLOW to the DOME and 12 and 14 CFCUs running in FAST to the GAP/SUP, then this JPM is complete.

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0
Control Room JPM e

Stop Time: _____

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0
Control Room JPM e
ATTACHMENT 2

JPM Number: ZC-2S

JPM Title: ALTERNATE FAN COIL UNITS

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

ZC-2S, ALTERNATE FAN COIL UNITS, REV 0

Control Room JPM e

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- 11 and 13 CFCUs are running in FAST to the GAP/SUP.
- 12 and 14 CFCUs are running in SLOW to the DOME.

INITIATING CUES:

- The Shift Supervisor directs you to alternate Containment Fan Coil Units and discharge dampers per 1C19.2, Containment Ventilation Unit 1, to the following lineup:
 - 11 and 13 CFCUs running in SLOW to the DOME.
 - 12 and 14 CFCUs running in FAST to the GAP/SUP.

Control Room JPM f

	JOB PERFORMANCE MEASURE (JPM)
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SITE: PRAIRIE ISLAND

JPM TITLE: RESPOND TO FAULTY VOLTAGE REGULATOR

JPM NUMBER: ED-4SF **REV.** 1

RELATED PRA INFORMATION: NONE

TASK NUMBERS / TASK TITLE(S): CRO 045 004 01 01 000 / OPERATE GENERATOR VOLTAGE REGULATOR

K/A NUMBERS: 2.2.44 (4.2/4.4)

APPLICABLE METHOD OF TESTING:

Discussion: Simulate/walkthrough: Perform:

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

Time for Completion: 7 Minutes Time Critical: NO

Alternate Path: YES

TASK APPLICABILITY: SRO: RO: NLO

Additional site-specific signatures may be added as desired.

Developed by:	Shawn Sarrasin	1/19/2016
	Developer	Date
Validated by:	Justin Hasner	1/20/2016
	Validator (See JPM Validation Checklist, Attachment 1)	Date
Approved by:	Mike Petersen	3/25/2016
	Training Supervisor	Date

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1
Control Room JPM f

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- The TSO has requested that Unit 1 raise generator voltage until reactive load is approximately 50 MVAR - DELIVERING.

INITIATING CUES:

- The SS directs you to adjust reactive loading per step 5.1.1 of C22.6, 1[2] Generator and Generator Transformer.

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1
Control Room JPM f
JPM PERFORMANCE INFORMATION

Required Materials: NONE

General C22.6, 1[2] GENERATOR & GENERATOR TRANSFORMER
F C22.6 AOP2, LOSS OF GENERATOR FIELD CURRENT
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Task Examinee raises generator voltage and transfers voltage control to manual by
S placing the voltage regulator in off.
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Start Time: _____

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

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1
Control Room JPM f

Performance Step:	C22.6, step 5.1.1
Critical <u>Y</u>	A. Adjust generator voltage using CS-46377, GEN VOLT REG ADJ, to maintain the following: <ul style="list-style-type: none"> • Proper 345KV bus voltage • Desired reactive (deliver/receive) load
Standard:	Examinee raises reactive load using CS-46377.
Evaluator Note:	When examinee raises reactive load above 20 MVARs DELIVERING, AUTO TRIGGER 1 will insert causing a loss of the VR and associated alarms.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

ALTERNATE PATH STARTS HERE

Performance Step:	C47006-0307, step 1
Critical <u>Y</u>	IF generator did not trip, THEN perform the following: A. Transfer generator voltage control to MANUAL by placing CS-46368, GEN REGULATOR CONTROL, to OFF.
Standard:	Examinee places CS-46368 to OFF.
Evaluator Note:	Examinee may choose to go to C47006-0507 vice 0307. C47006-0507 will also have the examinee place VR in OFF.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	C47006-0307, step 1
Critical <u>N</u>	IF generator did not trip, THEN perform the following: B. Control generator voltage using CS-46366, GEN EXCITER BASE ADJ, per C22.6, GENERATOR AND MAIN TRANSFORMER.
Standard:	Examinee raises reactive load to ~50 MVARs delivering.
Evaluator Note:	Examinee may choose not to adjust load pending troubleshooting and repair of VR.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1

Control Room JPM f

Terminating Cues: When examinee raises generator voltage and transfers voltage control to manual by placing the voltage regulator in off, then this JPM is complete.

Stop Time: _____

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1
Control Room JPM f

ATTACHMENT 2

JPM Number: ED-4SF

JPM Title: RESPOND TO FAULTY VOLTAGE REGULATOR

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

ED-4SF, RESPOND TO FAULTY VOLTAGE REGULATOR, REV. 1
Control Room JPM f

ATTACHMENT 3
TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- The TSO has requested that Unit 1 raise generator voltage until reactive load is approximately 50 MVAR - DELIVERING.

INITIATING CUES:

- The SS directs you to adjust reactive loading per step 5.1.1 of C22.6, 1[2] Generator and Generator Transformer.

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0
Control Room JPM g

INITIAL CONDITIONS:

- Unit 1 and Unit 2 are at 100% power.
- R-11 and R-12 need to be removed from service for preventative maintenance.
- Steps 6.4.1 through 6.4.8.B of C11, Radiation Monitoring System, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to remove 1R11/12 from service per section 6.4 of C11, Radiation Monitoring System.

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0
Control Room JPM g

JPM PERFORMANCE INFORMATION

Required Materials: Steps 6.4.1 through 6.4.8.B of C11 marked complete.
Key 167 for the Control Room RAM 606.

General C11, RADIATION MONITORING SYSTEM

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Task Examinee changes R11/R12 pump status to OFF.

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Start Time: _____

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

Performance Step:	C11 step 6.4.8.C.1
Critical <u>N</u>	Place the Control Room RAM606 key switch in the "KEYPAD" position.
Standard:	Examinee places the RAM606 key switch in the "KEYPAD" position.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0
Control Room JPM g

Performance Step: Critical <u>N</u>	C11 step 6.4.8.C.2 Depress the up arrow to select Channel 1R-11 [2R-11] on the RAM606 display.
Standard:	Examinee selects 1R-11 on the RAM606 display.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>N</u>	C11 step 6.4.8.C.3 Check the Pump Status "ON" indicated on the lower line of the single channel rate display.
Standard:	Examinee identifies that the pump status is "on."
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>N</u>	C11 step 6.4.8.C.4 Depress the up arrow twice to return to the dual rate display.
Standard:	Examinee returns to the dual rate display.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step: Critical <u>Y</u>	C11 step 6.4.8.C.5 Depress MODE once. The Pump Status Display will be shown.
Standard:	Examinee navigates to Pump Status Display.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0

Control Room JPM g

Performance Step:	C11 step 6.4.8.C.6
Critical <u>Y</u>	Depress SET to enter the pump status change subroutine.
Standard:	Examinee enters the pumps statue change subroutine.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0
Control Room JPM g

Performance Step:	C11 step 6.4.8.C.7
Critical <u>Y</u>	Depress the Up arrow to select pump status to OFF.
Standard:	Examinee selects pump status to OFF.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	C11 step 6.4.8.C.8
Critical <u>Y</u>	Depress SET to accept the pump status change.
Standard:	Examinee accepts pump status change.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	C11 step 6.4.8.C.9
Critical <u>N</u>	Depress MODE once to return to the dual rate display.
Standard:	Examinee returns to the dual rate display.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	C11 step 6.4.8.C.10
Critical <u>N</u>	Depress the up arrow to select Channel 1R-11 [2R-11] on the RAM606 display.
Standard:	Examinee selects 1R-11 on the RAM606 display.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0
Control Room JPM g

Performance Step:	C11 step 6.4.8.C.11
Critical <u>N</u>	Verify the Pump Status OFF in the lower line display.
Standard:	Examinee identifies that the pump status is “off.”
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	C11 step 6.4.8.D
Critical <u>N</u>	Place the Control Room RAM606 key switch in the “OFF” position.
Standard:	Examinee places the RAM606 key in “OFF.”
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Terminating Cues: When the examinee has changed R11/R12 pump status to OFF, then this JPM is complete.

Stop Time: _____

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0
Control Room JPM g

ATTACHMENT 2

JPM Number: RM-5S

JPM Title: SECURE R11/12 IN CONTROL ROOM

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

RM-5S, SECURE R11/12 IN CONTROL ROOM, REV 0
Control Room JPM g

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 and Unit 2 are at 100% power.
- R-11 and R-12 need to be removed from service for preventative maintenance.
- Steps 6.4.1 through 6.4.8.B of C11, Radiation Monitoring System, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to remove 1R11/12 from service per section 6.4 of C11, Radiation Monitoring System.

FP-7S, ALIGN SCREENWASH PUMP TO FIRE HEADER, REV 0
Control Room JPM h

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- 121 Motor Driven Fire Pump is out of service.
- 122 Diesel Fire Pump is out of service.
- 47022-0307, FIRE HEADER (121 FIRE PUMP AUTO START) LO PRESS, is in ALARM.
- Steps 5.5.1.A and 5.5.1.B of C31, Fire Protection & Detection Systems, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to align the Screenwash Pump to the fire protection header per section 5.5.1 of C31, Fire Protection & Detection Systems.

FP-7S, ALIGN SCREENWASH PUMP TO FIRE HEADER, REV 0
Control Room JPM h

JPM PERFORMANCE INFORMATION

Required Materials: Mark up steps 5.5.1.A and 5.5.1.B as complete.

General C31, FIRE PROTECTION & DETECTION SYSTEMS

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Task Examinee establishes flow from the Screenwash Pump to the fire protection
S header.

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Start Time: _____

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

FP-7S, ALIGN SCREENWASH PUMP TO FIRE HEADER, REV 0
Control Room JPM h

Performance Step:	C31, step 5.5.1.C.
Critical <u>Y</u>	OPEN CV-31055, 121 SCRN WSH PMP DISCH TO FIRE PROT, using CS-46043.
Standard:	Examinee opens CV-31055.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Performance Step:	C31, step 5.5.1.D.
Critical <u>Y</u>	Start 121 Screenwash Pump using CS-46466.
Standard:	Examinee starts 121 Screenwash pump using CS-46466.
Performance:	SATISFACTORY <input type="checkbox"/> UNSATISFACTORY <input type="checkbox"/>
Comments:	_____

Terminating Cues: **When the examinee establishes flow from the Screenwash Pump to the fire protection header, then this JPM is complete.**

Stop Time: _____

FP-7S, ALIGN SCREENWASH PUMP TO FIRE HEADER, REV 0
Control Room JPM h

ATTACHMENT 2

JPM Number: FP-7S

JPM Title: ALIGN SCREENWASH PUMP TO FIRE HEADER

Examinee & ID: _____

Evaluator: _____

Job Title: _____

Date: _____

Start Time _____

Finish Time _____

PERFORMANCE RESULTS:

SAT:

UNSAT:

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

EVALUATOR'S SIGNATURE: _____

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

FP-7S, ALIGN SCREENWASH PUMP TO FIRE HEADER, REV 0
Control Room JPM h

ATTACHMENT 3

TURNOVER SHEET

INITIAL CONDITIONS:

- Unit 1 is at 100% power.
- 121 Motor Driven Fire Pump is out of service.
- 122 Diesel Fire Pump is out of service.
- 47022-0307, FIRE HEADER (121 FIRE PUMP AUTO START) LO PRESS, is in ALARM.
- Steps 5.5.1.A and 5.5.1.B of C31, Fire Protection & Detection Systems, are complete.

INITIATING CUES:

- The Shift Supervisor directs you to align the Screenwash Pump to the fire protection header per section 5.5.1 of C31, Fire Protection & Detection Systems.