

Facility: FENOC BVPS Unit 2		Date of Examination: 5/29/01
Exam Level (circle one): RO / SRO(I) / SRO(U)		Operating Test No.: 2LOT3
B.1 Control Room Systems		
System / JPM Title	Type Code*	Safety Function
1. Emergency Borate the Reactor Coolant System [Faulted]	S, M, A	3
2. Block SI Following a Loss of Heat Sink [Faulted]	S, M, A	4
3. Respond to Radiation Monitor Alarm - Leak Collection Tank [Faulted]	S, D, A	9
4. Initiate a Natural Circulation Cooldown per ES-0.2 [Faulted]	S, M, A	2
5. Calculate and Restore Containment Air Partial Pressure	S, N	5
6. Energize 4KV Emergency Bus 2AE From Offsite Power	S, D	6
7. Respond To Failed Power Range Channel N-44	S, D	7
B.2 Facility Walk-Through		
8. Isolate AFW During Alternate Safe Shutdown [Abnormal Task]	D, R	8
9. Startup A Rod Drive MG Set	D	1
10. Shutdown Uninterruptible Power Supply [UPS*VITBS2-3]	D	6
* 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		

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-511 JPM REVISION: 3a	JPM TITLE: Emergency Borate the Reactor Coolant System (Faulted)
---	--

K/A REFERENCE: 006A1.11 3.1/3.4

TASK ID: 0071-039-01-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input checked="" type="checkbox"/> Perform <input type="checkbox"/> Simulate	<input type="checkbox"/> Plant Site <input checked="" type="checkbox"/> Simulator <input type="checkbox"/> Classroom	<input type="checkbox"/> Annual Requal Exam <input checked="" type="checkbox"/> Initial Exam <input type="checkbox"/> OJT/TPE <input type="checkbox"/> Training <input type="checkbox"/> Other:	<input type="checkbox"/> BVT <input checked="" type="checkbox"/> NRC <input type="checkbox"/> Other:

EVALUATION RESULTS

Performer Name: _____	Performer SSN: _____
-----------------------	----------------------

Time <input type="checkbox"/> Yes Critical: <input checked="" type="checkbox"/> No	Allotted Time: 15 minutes	Actual Time: _____ minutes
---	----------------------------------	-----------------------------------

JPM RESULTS: SAT
 UNSAT (Comments required for UNSAT evaluation)

Comments: _____

OBSERVERS

Name/SSN: _____	Name/SSN: _____
Name/SSN: _____	Name/SSN: _____

EVALUATOR

Evaluator (Print): _____ Date: _____

Evaluator Signature: _____

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-511
JPM REVISION: 3a

JPM TITLE: Emergency Borate the Reactor Coolant System (Faulted)

EVALUATOR DIRECTION SHEET

TASK STANDARD: Emergency boration is established to the Reactor Coolant System at a flow greater than 30 gpm.

RECOMMENDED STARTING LOCATION: Control Room

DIRECTIONS: You are to simulate (perform) the task of initiating emergency boration of the RCS.

INITIAL CONDITIONS: The plant was at 100% power when an inadvertent dilution occurred. The CVCS system is in operation with all components in their normal operating alignment.

INITIATING CUE: Your Supervisor directs you initiate emergency boration of the RCS in accordance with the operating procedure at a flow rate greater than 30 gpm.

REFERENCES: 2OM-7.4.Q Issue 4, Rev. 6

TOOLS: None.

HANDOUT: 2OM-7.4.Q Issue 4, Rev. 6

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Emergency borate the Reactor Coolant System.

INITIAL CONDITIONS: The plant was at 100% power when an inadvertent dilution occurred. The CVCS system is in operation with all components in their normal operating alignment.

INITIATING CUE: Your Supervisor directs you initiate emergency boration of the RCS in accordance with the operating procedure at a flow rate greater than 30 gpm.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task. Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM". Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-511 JPM REVISION: 3a	JPM TITLE: Emergency Borate the Reactor Coolant System
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Setup: Initialize IC-176. </div>	
1. Candidate obtains procedure, 2OM-7.4.Q, Emergency Boration.	1. Candidate locates 2OM-7.4.Q, Emergency Boration. COMMENTS:	
2. Open [2CHS*MOV350], Emergency Boration Isolation Valve.	2.1 Candidate locates [2CHS*MOV350]. 2.2 Candidate takes [2CHS*MOV350] Control Switch to OPEN. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> SIMULATED CUE: Green light is lit. </div> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR NOTE: If asked, state that all other attempts to open the valve fail. </div> COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-511 JPM REVISION: 3a	JPM TITLE: Emergency Borate the Reactor Coolant System
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>3.C Open [2CHS*SOV206] Alternate Emergency Boration Valve.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px 0;">NOTE: FAULTED PATH</div>	<p>3.1 Candidate identifies abnormal conditions and refers to Part B of procedure.</p> <p>3.2 Candidate locates control switch for [2CHS*SOV206].</p> <p>3.3.C Candidate turns switch to the OPEN position.</p> <p>3.4 Candidate verifies red light lit.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">SIMULATED CUE: [2CHS*SOV206] red light is lit.</div> <p>COMMENTS:</p>	
<p>4.C Place Makeup Mode Selector Switch to BORATE.</p>	<p>4.C Candidate turns Makeup Mode Selector Switch to the BORATE position.</p> <p>COMMENTS:</p>	
<p>5.C Set Boric Acid To Blender Flow Totalizer to a makeup volume of at least 1000 gallons.</p>	<p>5.1 Candidate locates Boric Acid To Blender Flow Totalizer.</p> <p>5.2C Candidate sets Boric Acid To Blender Flow Totalizer to 1000 gallons or greater.</p> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-511 JPM REVISION: 3a	JPM TITLE: Emergency Borate the Reactor Coolant System
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>6.C Place the Boric Acid Makeup Blender Control Switch to the START position.</p>	<p>6.1 Candidate locates the Boric Acid Makeup Blender Control Switch.</p> <p>6.2.C Candidate places control switch to the START position.</p> <p>6.3 Candidate verifies red light lit.</p> <div data-bbox="735 646 1377 705" style="border: 1px solid black; padding: 2px;"> <p>SIMULATED CUE: If asked, red light is lit.</p> </div> <p>COMMENTS:</p>	
<p>7. Check the inservice boric acid transfer pump starts.</p>	<div data-bbox="719 989 1360 1087" style="border: 1px solid black; padding: 2px;"> <p>EVALUATOR NOTE: If asked, [2CHS*P22A] is the in-service boric acid pump.</p> </div> <p>7. Candidate identifies the inservice boric acid pump and explains that the control switch would be verified in AUTOMATIC and the pump should start.</p> <div data-bbox="719 1234 1360 1293" style="border: 1px solid black; padding: 2px;"> <p>SIMULATED CUE: Pump red light is lit.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-511 JPM REVISION: 3a	JPM TITLE: Emergency Borate the Reactor Coolant System
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>8.C Place [2CHS*FCV113A], Boric Acid to Blender Control Station in MAN and full OPEN.</p>	<p>8.1 Candidate locates [2CHS*FCV113A] control station.</p> <p>8.2.C Candidate places control station in MAN and full OPEN.</p> <p>8.3 Candidate verifies that the demand indicator moves to the open direction.</p> <div data-bbox="716 667 1352 762" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>SIMULATED CUE: [2CHS*FCV113A] demand indicator is at 0, full OPEN.</p> </div> <p>COMMENTS:</p>	
<p>9.C Place [2CHS*FCV113B], Boric Acid Blender Disch To Chg Pumps control switch to CLOSE.</p>	<p>9.1 Candidate locates [2CHS*FCV113B].</p> <p>9.2.C Candidate places control switch to CLOSE.</p> <p>9.3 Candidate verifies valve closed indication.</p> <div data-bbox="737 1360 1373 1455" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>SIMULATED CUE: [2CHS*FCV113B] green light is lit.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-511
 JPM REVISION: 3a

JPM TITLE: Emergency Borate the Reactor Coolant System

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>10. Check [2CHS-FR113], Boric Acid to Blender Flow Recorder red pen indicates full scale (> 40 gpm boric acid flow).</p>	<p>10.1 Candidate locates [2CHS-FR113] (VB-A). 10.2 Candidate verifies flow is > 40 GPM.</p> <div data-bbox="711 554 1349 653" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: [2CHS-FR113] indicates > 40 gpm boric acid flow.</p> </div> <p>COMMENTS:</p>	
<p>11. Verify [2CHS*FI122] Charging Line Flow indicates > 40 gpm flow.</p>	<p>11.1 Candidate locates [2CHS*FI122]. 11.2 Candidate verifies flow is > 40 gpm.</p> <div data-bbox="711 1230 1349 1329" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: [2CHS*FI122] indicates 100 gpm flow.</p> </div> <p>COMMENTS:</p>	
	<p>STOP TIME: _____</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N JPM REVISION: 0	JPM TITLE: Block SI Following a Loss of Heat Sink (Faulted)
--	---

K/A REFERENCE: E05 EA1.1 4.1/4.0 TASK ID: 0533-006-05-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input checked="" type="checkbox"/> Perform	<input type="checkbox"/> Plant Site	<input type="checkbox"/> Annual Requal Exam	<input type="checkbox"/> BVT
<input type="checkbox"/> Simulate	<input checked="" type="checkbox"/> Simulator	<input checked="" type="checkbox"/> Initial Exam	<input checked="" type="checkbox"/> NRC
	<input type="checkbox"/> Classroom	<input type="checkbox"/> OJT/TPE	<input type="checkbox"/> Other:
		<input type="checkbox"/> Training	
		<input type="checkbox"/> Other:	

EVALUATION RESULTS			
Performer Name:		Performer SSN:	
Time <input type="checkbox"/> Yes	Allotted	Actual	
Critical: <input checked="" type="checkbox"/> No	Time: 20 minutes	Time: minutes	
JPM RESULTS: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT (Comments required for UNSAT evaluation)			
Comments: _____ _____			
OBSERVERS			
Name/SSN:		Name/SSN:	
Name/SSN:		Name/SSN:	
EVALUATOR			
Evaluator (Print): _____		Date: _____	
Evaluator Signature: _____			

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N
JPM REVISION: 0

JPM TITLE: Block SI Following a Loss of Heat Sink (Faulted)

EVALUATOR DIRECTION SHEET

TASK STANDARD: Safety injection is blocked as indicated by annunciators A12-1B and A12-1A.

RECOMMENDED STARTING LOCATION: Control Room

DIRECTIONS: You are to simulate (perform) the task of blocking safety injection.

INITIAL CONDITIONS: The plant was tripped from 100% power when a loss of all feedwater occurred. The crew entered E-0 and transitioned to FR-H.1, which is currently in progress and completed through Step 4.

INITIATING CUE: Your Supervisor directs you continue with FR-H.1 at Step 5 and block safety injection.

REFERENCES: FR-H.1 Issue 1B, Rev. 6

TOOLS: None.

HANDOUT: FR-H.1 Issue 1B, Rev. 6

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK:

You are to simulate (perform) the task of blocking safety injection.

INITIAL CONDITIONS:

The plant was tripped from 100% power when a loss of all feedwater occurred. The crew entered E-0 and transitioned to FR-H.1, which is currently in progress, and completed through Step 4.

INITIATING CUE:

Your Supervisor directs you continue with FR-H.1 at Step 5 and block safety injection.

At this time, ask the evaluator any questions you have on this JPM.

When satisfied that you understand the assigned task, announce "I am now beginning the JPM".

Simulate performance or perform as directed the required task.

Point to any indicator or component you verify or check and announce your observations.

After determining the Task has been met announce " I have completed the JPM".

Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N
 JPM REVISION: 0

JPM TITLE: Block SI Following a Loss of Heat Sink Accident

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Setup: Initialize IC-175. Place RDT on [2FWS-P24] SG Startup Feed Pump control switch. </div>	
1. Candidate obtains procedure FR-H.1.	1. Candidate locates procedure FR-H.1. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: Provide Candidate a copy of procedure FR-H.1. </div> COMMENTS:	
2. Check if SI is in service.	2.1 Candidate locates [2SIS*FI945 (946)] and verifies no LHSI flow indicated. 2.2 Candidate locates [2SIS*FI940 (943)] and verifies no HHSI flow indicated. COMMENTS:	
3. Set steam dumps in AUTO mode.	3.1 Candidate locates [2MSS*PK464] and adjusts above existing steam header pressure. 3.2 Candidate verifies [2MSS*PK464] in AUTO. 3.3 Candidate verifies steam dump control mode selector switch in STM PRESS position. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N
 JPM REVISION: 0

JPM TITLE: Block SI Following a Loss of Heat Sink Accident

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>4.C STOP all RCP's.</p>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>EVALUATOR NOTE: RCP's may be stopped in any order.</p> </div> <p>4.1 Candidate locates control switch for [2RCS*P21A].</p> <p>4.2.C Candidate turns [2RCS*P21A] control switch to the STOP position.</p> <p>4.3 Candidate locates control switch for [2RCS*P21B].</p> <p>4.4.C Candidate turns [2RCS*P21B] control switch to the STOP position.</p> <p>4.5 Candidate locates control switch for [2RCS*P21C].</p> <p>4.6.C Candidate turns [2RCS*P21C] control switch to the STOP position.</p> <p>COMMENTS:</p>	
<p>5.C Place all PRZR heaters in Pull-To-Lock.</p>	<p>5.1 Candidate locates PRZR heater control switches.</p> <p>5.2.C Candidate places all PRZR heater control switches in Pull-To-Lock position.</p> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N
 JPM REVISION: 0

JPM TITLE: Block SI Following a Loss of Heat Sink Accident

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
6. Verify [2BDG*AOV100A1, B1, C1] CLOSED.	6.1 Candidate locates [2BDG*AOV100A1, B1, C1] indications and verifies all valves CLOSED. COMMENTS:	
7. Verify [2SSR*AOV117A, B, C] CLOSED.	7.1 Candidate locates [2SSR*AOV117A, B, C] indications and verifies all valves CLOSED. COMMENTS:	
8. Try to establish Main FW Flow to at least one S/G. Check any condensate pump RUNNING.	8.1 Candidate locates [2CNM-P21A, B, C] indications and verifies at least one pump RUNNING. COMMENTS:	
9. Try to establish Main FW Flow: Check FW isolation valves OPEN.	9.1 Candidate locates [2FWS*HYV157A, B, C] indications and verifies all valves are OPEN. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N JPM REVISION: 0	JPM TITLE: Block SI Following a Loss of Heat Sink Accident
--	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>10. Try to establish Main FW Flow by starting the SG Startup Feed Pump.</p>	<p>10.1 Candidate locates [2FWS-P24] control switch and notes that the pump is unavailable due to an equipment clearance.</p> <div data-bbox="711 527 1390 648" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: Candidate may attempt to start a Main FW Pump; however, neither will start requiring a transition to Step 9.</p> </div> <p>COMMENTS:</p>	
<p>11. Depressurize RCS to < 1950 psig. Check letdown flow indicated.</p> <div data-bbox="175 1083 583 1163" style="border: 1px solid black; padding: 5px;"> <p>NOTE: FAULTED PATH</p> </div>	<p>11.1 Candidate locates [2CHS-FI150] and verifies letdown flow NOT indicated.</p> <p>COMMENTS:</p>	
<p>12.C Use one PORV to depressurize the RCS.</p>	<p>12.1 Candidate locates [2RCS*MOV535, 536, 537] indications and verifies at least one valve is OPEN.</p> <p>12.2.C Candidate locates [2RCS*PCV455C, 456, 455D] control switches and OPENS one PORV.</p> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N JPM REVISION: 0	JPM TITLE: Block SI Following a Loss of Heat Sink Accident
--	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>13. Adjust charging flow to maintain PRZR level.</p>	<p>13.1 Candidate locates [2CHS*FCV122] control station and adjusts to maintain PRZR level.</p> <p>COMMENTS:</p>	
<p>14.C Stop depressurization when RCS reaches 1950 psig.</p>	<p>14.1.C Candidate monitors RCS pressure and CLOSES PORV when RCS pressure decreases to 1950 psig.</p> <p>COMMENTS:</p>	
<p>15.C Block SI Signals. BLOCK Low Steamline Pressure SI.</p>	<p>15.1.C Candidate locates Low Steamline Pressure SI switches and places BOTH switches momentarily in the BLOCK position.</p> <p>15.2 Candidate verifies annunciator A12-1B LIT.</p> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-H1N
 JPM REVISION: 0

JPM TITLE: Block SI Following a Loss of Heat Sink Accident

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>16.C Block SI Signals. BLOCK Low PRZR Pressure SI.</p>	<p>16.1.C Candidate locates Low PRZR Pressure SI switches and places BOTH switches momentarily in the BLOCK position.</p> <p>16.2 Candidate verifies annunciator A12-1A LIT.</p> <div data-bbox="732 596 1370 690" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR NOTE: If Candidate continues with procedure, secure JPM at this point.</p> </div> <p>COMMENTS:</p>	
	<p>STOP TIME: _____</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-622 JPM REVISION: 1a	JPM TITLE: Respond to a Radiation Monitor Alarm - Leak Collection Tank (Faulted)
---	--

K/A REFERENCE: 073 A4.02 3.7/3.7

TASK ID: 0431-028-01-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input checked="" type="checkbox"/> Perform <input type="checkbox"/> Simulate	<input type="checkbox"/> Plant Site <input checked="" type="checkbox"/> Simulator <input type="checkbox"/> Classroom	<input type="checkbox"/> Annual Requal Exam <input checked="" type="checkbox"/> Initial Exam <input type="checkbox"/> OJT/TPE <input type="checkbox"/> Training <input type="checkbox"/> Other:	<input type="checkbox"/> BVT <input checked="" type="checkbox"/> NRC <input type="checkbox"/> Other:

EVALUATION RESULTS			
Performer Name:		Performer SSN:	
Time <input type="checkbox"/> Yes Critical: <input checked="" type="checkbox"/> No	Allotted Time: 20 minutes	Actual Time:	minutes
JPM RESULTS: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT (Comments required for UNSAT evaluation)			
Comments: _____ _____			
OBSERVERS			
Name/SSN:		Name/SSN:	
Name/SSN:		Name/SSN:	
EVALUATOR			
Evaluator (Print): _____		Date: _____	
Evaluator Signature: _____			

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-622 JPM REVISION: 1a	JPM TITLE: Respond to a Radiation Monitor Alarm - Leak Collection Tank (Faulted)
---	--

EVALUATOR DIRECTION SHEET

TASK STANDARD: Radiation monitor automatic actions have been verified.

RECOMMENDED STARTING LOCATION: Control Room

DIRECTIONS: Respond to a radiation monitor high alarm.

INITIAL CONDITIONS: The plant is currently at 100% power. Annunciator A4-5C has just been received.

INITIATING CUE: Your Supervisor directs you to respond to the alarm using the appropriate alarm response procedures.

REFERENCES: 2OM-43.4.AAC Issue 4, Rev. 0
2OM-43.4.AEB Issue 1, Rev. 4

TOOLS: None

HANDOUT: 2OM-43.4. AAC & AEB

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Respond to a radiation monitor high alarm.

INITIAL CONDITIONS: The plant is currently at 100% power. Annunciator A4-5C has just been received.

INITIATING CUE: Your Supervisor directs you to respond to the alarm using the appropriate alarm response procedures.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-622 JPM REVISION: 1a	JPM TITLE: Respond to a Radiation Monitor Alarm (Leak Collection Vent)
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Setup: Initialize IC-176. </div> <div style="border: 1px solid black; padding: 5px;"> EVALUATOR NOTE: JPM steps 1 - 6 are optional, N/A if Candidate omits them. </div>	
1. Candidate obtains procedure 2OM-43.4.AAC, Radiation Monitoring Level High.	1.1 Candidate locates procedure for annunciator A4-5C. <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> EVALUATOR CUE: Provide Candidate a copy of 2OM-43.4.AAC. </div> COMMENTS:	
2. Verify or depress the grid six pushbutton and determine which radiation monitor is in alarm at the RM-11 console.	2.1 Candidate locates the grid six pushbutton and depresses it, OR verifies that the grid is already displayed. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-622 JPM REVISION: 1a	JPM TITLE: Respond to a Radiation Monitor Alarm (Leak Collection Vent)
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
4. Depress the STATUS pushbutton.	4.1 Candidate locates and depresses the STATUS pushbutton. COMMENTS:	
5. Silence the alarm console.	5.1. Candidate depresses the SYSTEM ACK pushbutton to silence the alarm. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> EVALUATOR CUE: The audible alarm may be defeated and not sound, otherwise cue that the alarm has silenced. </div> COMMENTS:	
6. Check if radiation level is at or approaching 1000 times background.	6.1 Candidate compares reading against background or notifies NSS. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> EVALUATOR CUE: The NSS is aware of the alarm level. </div> COMMENTS:	

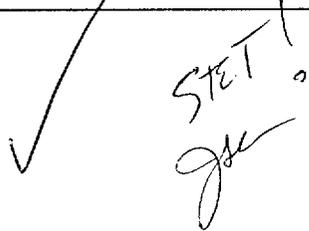
OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-622 JPM REVISION: 1a	JPM TITLE: Respond to a Radiation Monitor Alarm (Leak Collection Vent)
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>7.C Candidate determines that [2RMR-RQI301] Leak Collection Ventilation Radiation Monitor is in alarm and then refers to local alarm response procedure for the corrective actions.</p>	<p>7.1.C Candidate determines 2RMR-RQI301 is in alarm.</p> <p>7.2 Candidate locates 2OM-43.4.AEB.</p> <div data-bbox="738 569 1377 667" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Provide Candidate a copy of 2OM-43.4.AEB.</p> </div> <div data-bbox="738 684 1377 800" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: Candidate may verbalize monitor in alarm or may just use the correct procedure. Either action satisfies the critical step.</p> </div> <p>COMMENTS:</p>	
<p>8. At the RM-11 console, verify the indicating box turns red and moves to the right of CHANNEL IN HIGH ALARM.</p>	<p>8.1 Candidate verifies that the red box moves to the right.</p> <div data-bbox="738 1129 1377 1228" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: The alarm box to the right of CHANNEL IN HIGH ALARM is red.</p> </div> <p>COMMENTS:</p>	
<p>9. Depress the CHANNEL ITEMS pushbutton and verify that the actual level is higher than the high alarm setpoint.</p>	<p>9.1 Candidate depresses the CHANNEL ITEMS pushbutton.</p> <p>9.2 Compares actual level to high alarm setpoint.</p> <div data-bbox="738 1612 1377 1711" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: The monitor radiation level is 1.00E-01 µCi/ml and high alarm setpoint is 3.6E-05.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-622	JPM TITLE: Respond to a Radiation Monitor Alarm (Leak Collection Vent)
JPM REVISION: 1a	

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>10. Notify the ANSS/NSS and obtain directions.</p> <div data-bbox="191 573 597 632" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>NOTE: FAULTED PATH</p> </div>	<p>10.1 Candidate notifies NSS of the HIGH radiation monitor alarm and asks for direction.</p> <div data-bbox="732 531 1370 661" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: The NSS is aware of the alarm and has notified RADCON. He asks that you perform steps 1.e and 1.f. He will perform steps 1.g, h, & i.</p> </div> <p>COMMENTS:</p> <div style="text-align: right; margin-top: 20px;">  </div>	
<p>11. Verify that 2HVS*MOD201A & B are closed, and that 2HVS*MOD202A & B are open.</p>	<p>11.1 Candidate locates 2HVS*MOD201A & B and 2HVS*MOD202A & B on BSP.</p> <p>11.2 Verifies that 2HVS*MOD201A & B are closed and that 2HVS*MOD202A & B are open.</p> <p>11.3 Verifies that the damper green or red lights are lit.</p> <div data-bbox="732 1356 1408 1507" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>SIMULATED CUE: Dampers 2HVS*MOD201A & B are open, RED lights are lit. Dampers 2HVS*MOD202A & B are shut, GREEN lights are lit.</p> </div> <div data-bbox="732 1539 1408 1654" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: If asked for guidance, act as Supervisor and direct Candidate to place the dampers in their required position.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-622 JPM REVISION: 1a	JPM TITLE: Respond to a Radiation Monitor Alarm (Leak Collection Vent)
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>12.C Position dampers by placing the common control switch to "FILT" position for both Train 'A' and Train 'B'.</p>	<p>12.1 Candidate locates Train 'A' and Train 'B' control switches on the Building Service Panel.</p> <p>12.2.C Places the control switches to the "FILT" position.</p> <p>12.3 Candidate verifies that the damper green and red lights are lit.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>SIMULATED CUE: Dampers 2HVS*MOD201A & B GREEN lights are lit. 2HVS*MOD202A & B RED lights are lit.</p> </div> <p>COMMENTS:</p>	
STOP TIME: _____		

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-076	JPM TITLE: Initiate a Natural Circulation Cooldown per ES-0.2
JPM REVISION: 4a	(Faulted)

EVALUATOR DIRECTION SHEET

TASK STANDARD: Natural circulation cooldown established at a rate of $< 25^{\circ}\text{F/hr}$.

RECOMMENDED STARTING LOCATION: Control Room

DIRECTIONS: Establish a cooldown per EOP ES-0.2.

INITIAL CONDITIONS: The plant has been tripped manually due to a component cooling water problem that required stopping all reactor coolant pumps. The plant is now in a natural circulation cooldown mode. The operators have completed EOP's E-0, ES-0.1 and ES-0.2 through Step 5. The plant is stable with condenser steam dumps in automatic in the steam pressure mode and the bypass feedwater regulating valves in automatic maintaining S/G levels.

INITIATING CUE: Your supervisor directs you to initiate a cooldown at a rate of less than 25°F/hour in accordance with EOP ES-0.2, Step 6.

REFERENCES: EOP ES-0.2
EOP Attachment A-4.1

TOOLS: None

HANDOUT: EOP ES-0.2
EOP Attachment A-4.1

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Establish a cooldown per EOP ES-0.2.

INITIAL CONDITIONS: The plant has been tripped manually due to a component cooling water problem that required stopping all reactor coolant pumps. The plant is now in a natural circulation cooldown mode. The operators have completed EOP's E-0, ES-0.1 and ES-0.2 through Step 5. The plant is stable with condenser steam dumps in automatic in the steam pressure mode and the bypass feedwater regulating valves in automatic maintaining S/G levels.

INITIATING CUE: Your Supervisor directs you to initiate a cooldown at a rate of less than 25°F/hour in accordance with EOP ES-0.2, Step 6.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-076 JPM REVISION: 4a	JPM TITLE: Initiate a Cooldown per ES-0.2
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>Setup: Initialize IC-172 and run file JPM2CR-076.cae.</p> </div>	
<p>1. Obtain procedure ES-0.2.</p>	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>EVALUATOR CUE: Inform the Candidate that the Evaluator will act as the Reactor Operator.</p> <p>NOTE: It may be necessary to reduce letdown, manually operate FCV-122 or use a PORV to control pressure. Also, AFW starts are inhibited, so no actuation will occur if S/G levels are low.</p> </div> <p>2.1 Candidate locates EOP ES-0.2.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> <p>EVALUATOR CUE: Provide Candidate a copy of EOP ES-0.2.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-076 JPM REVISION: 4a	JPM TITLE: Initiate a Cooldown per ES-0.2
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>2. Trend RCS temperature and pressure at 10 minute intervals.</p>	<div data-bbox="737 453 1373 604" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: I will trend the RCS cold leg temperatures and RCS pressure. You are responsible for monitoring the cooldown rate. I can give you data as you request it.</p> </div> <p>2.1 Candidate acknowledges report to trend RCS cold leg temperatures and RCS pressure.</p> <p>2.2 Candidate refers to Attachment A-4.1 and ensures the following cooldown rate does not exceed 25°F/hr.</p> <p>COMMENTS:</p>	
<p>3. Maintain S/G level between 30% and 50%.</p>	<p>3.1 Locates appropriate S/G narrow range level indication.</p> <p>3.2 Checks S/G narrow range level indication.</p> <div data-bbox="737 1224 1373 1341" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: As each S/G level is checked, inform the Candidate that it is at 35% and slowly trending to 33%.</p> </div> <div data-bbox="737 1373 1373 1507" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: S/G levels may have to be adjusted. Inform the Candidate that the Evaluator will be responsible for S/G level control.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-076	JPM TITLE: Initiate a Cooldown per ES-0.2
JPM REVISION: 4a	

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
4. Dump steam to condenser.	<p>4.1 Candidate checks MSIV's open.</p> <div data-bbox="738 510 1372 567" style="border: 1px solid black; padding: 2px;"> <p>EVALUATOR CUE: All MSIV's are open.</p> </div> <p>4.2 Candidate checks Annunciator A12-4C "Condenser Unavailable (C-9)" - NOT LIT.</p> <div data-bbox="738 709 1409 766" style="border: 1px solid black; padding: 2px;"> <p>EVALUATOR CUE: Annunciator A12-4C is NOT LIT.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-076 JPM REVISION: 4a	JPM TITLE: Initiate a Cooldown per ES-0.2
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
---------------------------------------	--	-----

<p>5.C Set steam header pressure setpoint to initiate dumping steam.</p> <div data-bbox="175 569 623 762" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: If Candidate elects to go directly to manual and raise steam dump rate, request Simulator Instructor to lock out the condenser steam dumps.</p> </div> <div data-bbox="175 877 623 953" style="border: 1px solid black; padding: 5px; margin-top: 20px;"> <p>NOTE: FAULTED PATH</p> </div>	<p>5.1 Candidate sets STEAM HEADER pressure setpoint on [2MSS*PK464] MAIN STM MANIFOLD pressure control above existing steam header pressure.</p> <div data-bbox="740 575 1377 669" style="border: 1px solid black; padding: 5px; margin-left: 20px;"> <p>EVALUATOR CUE: All condenser steam dump valve green (closed) lights are lit.</p> </div> <p>5.2.C Candidates places 2MSS*PK464 in manual.</p> <p>5.3 Candidate verifies demand on 2MSS*PK464 is 0%.</p> <p>5.4 Candidate places/verifies the "Steam Dump Control Mode" selector switch in the STM PRESS MODE.</p> <p>5.5.C Candidate depresses raise pushbutton to open the steam dump valves.</p> <div data-bbox="756 978 1393 1052" style="border: 1px solid black; padding: 5px; margin-left: 20px;"> <p>EVALUATOR NOTE: All condenser steam dumps are failed closed</p> </div> <p>5.6.C Candidate notes failure of condenser steam dumps and informs Supervisor.</p> <div data-bbox="756 1167 1393 1278" style="border: 1px solid black; padding: 5px; margin-left: 20px;"> <p>EVALUATOR CUE: As Supervisor, acknowledge condenser steam dump failure and direct Candidate to use 2SVS*HCV104 to dump steam.</p> </div> <p>5.7.C Candidate refers to RNO and manually dumps steam using [2SVS*HCV104] Residual Heat Release Valve.</p> <p>COMMENTS:</p>	
---	---	--

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-076 JPM REVISION: 4a	JPM TITLE: Initiate a Cooldown per ES-0.2
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
---------------------------------------	--	-----

6.C Establish desired cooldown rate.	6.1 Candidate monitors cooldown rate. 6.2.C Candidate adjusts cooldown rate as necessary to establish a cooldown rate less than 25°F/hr. <div data-bbox="755 588 1388 703" style="border: 1px solid black; padding: 5px; margin: 10px 0;">EVALUATOR NOTE: A final stable cooldown rate is the critical element. A short term rise or drop in the cooldown rate is allowed.</div> COMMENTS:	
--------------------------------------	--	--

STOP TIME: _____

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-080a JPM REVISION: 0	JPM TITLE: Calculate and Restore CNMT Air Partial Pressure
---	--

K/A REFERENCE: 103A1.01 3.7/4.1

TASK ID: 0121-004-01-013

0121-005-01-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input checked="" type="checkbox"/> Perform <input type="checkbox"/> Simulate	<input type="checkbox"/> Plant Site <input checked="" type="checkbox"/> Simulator <input type="checkbox"/> Classroom	<input type="checkbox"/> Annual Requal Exam <input checked="" type="checkbox"/> Initial Exam <input type="checkbox"/> OJT/TPE <input type="checkbox"/> Training <input type="checkbox"/> Other:	<input type="checkbox"/> BVT <input checked="" type="checkbox"/> NRC <input type="checkbox"/> Other:

EVALUATION RESULTS

Performer Name:	Performer SSN:
-----------------	----------------

Time <input type="checkbox"/> Yes Critical: <input checked="" type="checkbox"/> No	Allotted Time: 20 minutes	Actual Time: minutes
---	------------------------------	-----------------------------

JPM RESULTS: SAT
 UNSAT (Comments required for UNSAT evaluation)

Comments: _____

OBSERVERS

Name/SSN:	Name/SSN:
Name/SSN:	Name/SSN:

EVALUATOR

Evaluator (Print): _____ Date: _____

Evaluator Signature: _____

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-080a
JPM REVISION: 0

JPM TITLE: Calculate and Restore CNMT Air Partial Pressure

EVALUATOR DIRECTION SHEET

TASK STANDARD: CNMT air partial pressure calculated, compared to Technical Specification and restored to within limits.

RECOMMENDED STARTING LOCATION: Control Room

DIRECTIONS: You are to simulate (perform) the task of calculating CNMT air partial pressure.

INITIAL CONDITIONS: The plant is in Mode 1 and CNMT total air pressure has just been reduced based on an MAO calculation of 10.0 psia. The computer points required for the calculation are out-of-service and the Ohio river water temperature is 70.1°F.

INITIATING CUE: Your Supervisor directs you to calculate CNMT air partial pressure in accordance with 2OM-54.3.L5, Surveillance Verification Log and adjust as necessary to satisfy Technical Specification limits.

REFERENCES: 2OM-54.3.L5, Rev. 29
2OM-54.2.S1 Issue 4, Rev. 4
Technical Specifications 3.6.1.4 and Figure 3.6-1
Steam Tables

TOOLS: Calculator

HANDOUT: 2OM-54.3.L5, Rev. 29
2OM-54.2.S1 Issue 4, Rev. 4
Technical Specifications LCO 3.6.1.4 and Figure 3.6-1
Steam Tables

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: You are to simulate (perform) the task of calculating CNMT air partial pressure.

INITIAL CONDITIONS: The plant is in Mode 1 and CNMT total air pressure has just been reduced based on an MAO calculation of 10.0 psia. The computer points required for the calculation are out-of-service and the Ohio river water temperature is 70.1°F.

INITIATING CUE: Your Supervisor directs you to calculate CNMT air partial pressure in accordance with 2OM-54.3.L5, Surveillance Verification Log and adjust as necessary to satisfy Technical Specification limits.

At this time, ask the evaluator any questions you have on this JPM.

When satisfied that you understand the assigned task, announce "I am now beginning the JPM".

Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.

After determining the Task has been met announce "I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-080a JPM REVISION: 0	JPM TITLE: Calculate and Restore CNMT Air Partial Pressure
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Setup: Initialize IC-176. </div>	
1. Obtain procedure 2OM-54.3.L5.	1. Candidate locates 2OM-54.3.L5. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> EVALUATOR CUE: Provide Candidate a copy of 2OM-54.3.L5, Steam Tables and calculator. </div> COMMENTS:	
2. Calculate CNMT average dewpoint temperature.	2.1 Candidate locates [2LMS-MI100-2, 3, 4, 5]. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> SIMULATED CUE: [2LMS-MI100-2, 3, 4, 5] read 52.8°F. </div> 2.2 Candidate records readings and calculates average dewpoint temperature. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> EVALUATOR NOTE: Average dewpoint temperature equals 52.8°F. </div> COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-080a JPM REVISION: 0	JPM TITLE: Calculate and Restore CNMT Air Partial Pressure
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>3. Calculate average CNMT total air pressure.</p>	<p>3.1 Candidate locates [2CVS-PI101A1, B1].</p> <p>3.2 Candidate records readings and calculates average CNMT total air pressure.</p> <div data-bbox="732 590 1390 688" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: [2CVS-PI101A1, B1] both read 10.1 psia.</p> </div> <div data-bbox="732 705 1390 804" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: Average CNMT total air pressure equals 10.1 psia.</p> </div> <p>COMMENTS:</p>	
<p>4. Determine saturation pressure.</p>	<p>4. Candidate determines saturation pressure corresponding to average dewpoint temperature from Steam Tables.</p> <div data-bbox="732 1203 1390 1302" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: Saturation pressure for 52.8°F equals 0.19 psia.</p> </div> <p>COMMENTS:</p>	
<p>5. Calculate air partial pressure.</p>	<p>5.1 Candidate subtracts saturation pressure from average CNMT total air pressure to determine calculated air partial pressure.</p> <div data-bbox="732 1654 1390 1753" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: Calculated air partial pressure equals 9.9 psia.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-080a JPM REVISION: 0	JPM TITLE: Calculate and Restore CNMT Air Partial Pressure
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
6. Obtain Ohio river water temperature.	6.1 Candidate records Ohio river water temperature given in the initial conditions. COMMENTS:	
7. Detemine MAO from T.S. Figure 3.6-1.	7. Candidate refers to T.S. Figure 3.6-1 and determines MAO based on temperature of 70.1°F. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> EVALUATOR NOTE: MAO equals 9.85 psia. </div> COMMENTS:	
8.C Verify calculated air partial pressure is within T.S. limits.	8.1C Candidate determines that air partial pressure is <u>NOT</u> within T.S. limits (greater than MAO). 8.2 Candidate verifies that [2CVS-PI101A1, B1] is greater than MAO. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> EVALUATOR NOTE: This step is optional based on previously recorded readings. </div> 8.3 Candidate reports air partial pressure is above T.S. limit. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> EVALUATOR CUE: As Supervisor, direct Candidate to take required action to restore CNMT pressure to within T.S. limits. </div> COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-080a JPM REVISION: 0	JPM TITLE: Calculate and Restore CNMT Air Partial Pressure
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>9. Obtain procedure 2OM-12.4.E.</p>	<p>9.1 Candidate locates procedure 2OM-12.4.E</p> <div data-bbox="735 495 1430 611" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: After locating procedure, provide Candidate a copy of 2OM-12.4.E and 2OM-54.2.S1. Inform that procedure Initial Conditions are met.</p> </div> <p>COMMENTS:</p>	
<p>10. Log reading of 2CVS-FQI101.</p>	<p>10.1 Candidate logs reading of [2CVS-FQI101] on 2OM-54.2.S1.</p> <p>COMMENTS:</p>	
<p>11.C Start [2CVS-P21A (21B)] (BB-A).</p>	<div data-bbox="751 1367 1409 1465" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: An Operator is stationed locally at the pump.</p> </div> <p>11.1C Candidate starts [2CVS-P21A (21B)] Cnmt Vacuum Pump (BB-A).</p> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-080a JPM REVISION: 0	JPM TITLE: Calculate and Restore CNMT Air Partial Pressure
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>12. Verify local pump parameters.</p>	<p>12. Candidate verifies acceptable pump operating parameters.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: Report as local Operator that Cnmt vacuum pump noise, vibration, leakage are not excessive and seal water pressure is 30 psig.</p> </div> <p>COMMENTS:</p>	
<p>13.C Verify air is being discharged through 2CVS-FQI101 (BB-A).</p>	<p>13.C Candidate verifies that air is being discharged through [2CVS-FQI101] Cnmt Vacuum Total Flow (BB-A).</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR NOTE: If Candidate continues with procedure, conclude JPM at this point.</p> </div> <p>COMMENTS:</p>	
<p>STOP TIME: _____</p>		

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-007 JPM REVISION: 8a	JPM TITLE: Energize 4KV Emergency Bus 2AE From Offsite Power
---	--

K/A REFERENCE: 055EA1.07 4.3/4.5 TASK ID: 0532-001-05-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input checked="" type="checkbox"/> Perform <input type="checkbox"/> Simulate	<input type="checkbox"/> Plant Site <input checked="" type="checkbox"/> Simulator <input type="checkbox"/> Classroom	<input type="checkbox"/> Annual Requal Exam <input checked="" type="checkbox"/> Initial Exam <input type="checkbox"/> OJT/TPE <input type="checkbox"/> Training <input type="checkbox"/> Other:	<input type="checkbox"/> BVT <input checked="" type="checkbox"/> NRC <input type="checkbox"/> Other:

EVALUATION RESULTS

Performer Name:	Performer SSN:
-----------------	----------------

Time <input type="checkbox"/> Yes Critical: <input checked="" type="checkbox"/> No	Allotted Time: 15 minutes	Actual Time: minutes
---	--------------------------------	---------------------------

JPM RESULTS: SAT
 UNSAT (Comments required for UNSAT evaluation)

Comments: _____

OBSERVERS

Name/SSN:	Name/SSN:
Name/SSN:	Name/SSN:

EVALUATOR

Evaluator (Print): _____ Date: _____

Evaluator Signature: _____

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-007
JPM REVISION: 8a

JPM TITLE: Energize 4KV Emergency Bus 2AE From Offsite Power

EVALUATOR DIRECTION SHEET

TASK STANDARD: 4KV Bus 2AE is energized from offsite power.

**RECOMMENDED
STARTING LOCATION:** Control Room

DIRECTIONS: Energize 4KV Emergency Bus 2AE from offsite power.

INITIAL CONDITIONS: Following a reactor trip from 100% power, plant conditions warrant the performance of ECA-0.0, "Loss Of All AC Power." Both diesel generators did not start. OCB 94 is open and cannot be closed (yellow caution tagged). All non-emergency and emergency bus pump loads are in Pull-To-Lock.

INITIATING CUE: Your Supervisor directs you to restore power to 4KV Bus 2A from offsite power and energize 4KV Emergency Bus 2AE using EOP Attachment A-1.4.

REFERENCES: EOP Attachment A-1.4 Issue 1B, Rev. 2

TOOLS: None

HANDOUT: EOP Attachment A-1.4

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Energize 4KV Emergency Bus 2AE from offsite power.

INITIAL CONDITIONS: Following a reactor trip from 100% power, plant conditions warrant the performance of ECA-0.0, "Loss Of All AC Power." Both diesel generators did not start. OCB 94 is open and cannot be closed (yellow caution tagged). All non-emergency and emergency bus pump loads are in Pull-To-Lock.

INITIATING CUE: Your Supervisor directs you to restore power to 4KV Bus 2A from offsite power and energize 4KV Emergency Bus 2AE using EOP Attachment A-1.4.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-007 JPM REVISION: 8a	JPM TITLE: Energize 4KV Emergency Bus 2AE From Offsite Power
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px;"> <p>Setup: Initialize IC-171 and perform the following: Trip OCB 94 and YCT. Depress 'Reset' on reheat controller, close 2CHS*AOV200A, B, & C and 2CHS*LCV460A & B. Depress steam line isolation pushbuttons. Place pump control switches listed in Attachment A-1.4, Steps 6 and 9 in PTL.</p> </div>	
1. Obtain procedure.	1.1 Candidate locates EOP Attachment A-1.4. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>EVALUATOR CUE: Provide candidate a copy of EOP Attachment A-1.4.</p> </div> <p>COMMENTS:</p>	
2. Establish communications with System Operator.	2.1 Candidate contacts System Operator. <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>EVALUATOR CUE: Inform Candidate that offsite power is available and to continue with procedure.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>EVALUATOR NOTE: Candidate may opt to only perform steps applicable to the "A" bus.</p> </div> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p>EVALUATOR CUE: If asked, inform Candidate that 4KV buses 2A, 2B, 2C & 2D indicate zero volts.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-007 JPM REVISION: 8a	JPM TITLE: Energize 4KV Emergency Bus 2AE From Offsite Power
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>3.C Open the 4KV breakers [ACB 42A, 142A, 242B, 342B] (BB-C).</p>	<p>3.1C Candidate takes 4KV breakers [ACB 42A, 142A, 242B, 342B] control switches to Open.</p> <p>COMMENTS:</p>	
<p>4. Verify Closed SSST 2A 138KV Motor-Operated Disconnect Switch 89-2A. (BB-C).</p>	<p>4.1 Candidate observes indicating lights for Switch 89-2A.</p> <div data-bbox="735 951 1393 1045" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>SIMULATED CUE: Red light on Switch 89-2A is LIT, green light is DARK.</p> </div> <p>COMMENTS:</p>	
<p>5. Verify Closed OCB 85. (BB-C)</p>	<p>5.1 Candidate observes indicating lights for OCB 85.</p> <div data-bbox="735 1514 1409 1602" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>SIMULATED CUE: OCB 85 red light LIT, green light DARK. OCB 94 is not available (yellow caution tagged).</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-007 JPM REVISION: 8a	JPM TITLE: Energize 4KV Emergency Bus 2AE From Offsite Power
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>6. Place all control room controlled non-operating 4160V pumps, powered from non-emergency busses, in Pull-To-Lock.</p>	<p>6.1 Candidate places control switches for the non-emergency pumps in PULL-TO-LOCK.</p> <div data-bbox="737 535 1414 632" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Inform Candidate that pumps are already in Pull-To-Lock. (Part of the Initial Conditions).</p> </div> <p>COMMENTS:</p>	
<p>7.C Close [ACB 42A] to energize 4KV bus 2A.</p>	<div data-bbox="755 936 1432 1089" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: If asked about applicability of station cross-tie, inform Candidate that information is available using plant indications to determine cross-tie status.</p> </div> <p>7.1.C Candidate places [ACB 42A] control switch in the close position.</p> <div data-bbox="755 1199 1393 1316" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: ACB42A, red light LIT, green light DARK. It is not desired to energize the 2B, 2C and 2D buses at this time.</p> </div> <div data-bbox="755 1335 1393 1453" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Both emergency buses 2AE and 2DF are de-energized due to diesel generator failures.</p> </div> <div data-bbox="755 1472 1393 1568" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: A service water pump should be kept available to provide diesel generator cooling.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-007 JPM REVISION: 8a	JPM TITLE: Energize 4KV Emergency Bus 2AE From Offsite Power
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>6. Place all control room controlled non-operating 4160V pumps, powered from non-emergency busses, in Pull-To-Lock.</p>	<p>6.1 Candidate places control switches for the non-operating pumps in PULL-TO-LOCK.</p> <div data-bbox="732 533 1409 632" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Inform Candidate that pumps are already in Pull-To-Lock. (Part of the Initial Conditions).</p> </div> <p>COMMENTS:</p>	
<p>7.C Close [ACB 42A] to energize 4KV bus 2A.</p>	<div data-bbox="751 934 1429 1087" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: If asked about applicability of station cross-tie, inform Candidate that information is available using plant indications to determine cross-tie status.</p> </div> <p>7.1.C Candidate places [ACB 42A] control switch in the close position.</p> <div data-bbox="751 1199 1390 1314" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: ACB42A, red light LIT, green light DARK. It is not desired to energize the 2B, 2C and 2D buses at this time.</p> </div> <div data-bbox="751 1335 1390 1446" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Both emergency buses 2AE and 2DF are de-energized due to diesel generator failures.</p> </div> <div data-bbox="751 1467 1390 1560" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: A service water pump should be kept available to provide diesel generator cooling.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-007 JPM REVISION: 8a	JPM TITLE: Energize 4KV Emergency Bus 2AE From Offsite Power
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>10.C Close 4KV emergency bus feeder breaker 2E7.</p>	<p>10.1.C Candidate places 4KV emergency bus feeder breaker 2E7 control switch in the Close position.</p> <p>10.2 Candidate performs this step within 30 seconds of completing previous step.</p> <div data-bbox="735 625 1373 720" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: BKR 2A10, red light LIT, green light is DARK.</p> </div> <div data-bbox="735 737 1373 831" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Another Operator will energize the 480V 2N bus.</p> </div> <p>COMMENTS:</p>	
STOP TIME: _____		

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-053 JPM REVISION: 3a	JPM TITLE: Respond to a Failed Power Range Channel N-44
---	---

K/A REFERENCE: 051A2.01 3.5/3.9
015A2.02 3.1/3.5

TASK ID: 0535-010-04-013
0021-004-01-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input checked="" type="checkbox"/> Perform <input type="checkbox"/> Simulate	<input type="checkbox"/> Plant Site <input checked="" type="checkbox"/> Simulator <input type="checkbox"/> Classroom	<input type="checkbox"/> Annual Requal Exam <input checked="" type="checkbox"/> Initial Exam <input type="checkbox"/> OJT/TPE <input type="checkbox"/> Training <input type="checkbox"/> Other:	<input type="checkbox"/> BVT <input checked="" type="checkbox"/> NRC <input type="checkbox"/> Other:

EVALUATION RESULTS			
Performer Name:		Performer SSN:	
Time <input type="checkbox"/> Yes Critical: <input checked="" type="checkbox"/> No	Allotted Time: 15 minutes	Actual Time: minutes	
JPM RESULTS: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT (Comments required for UNSAT evaluation)			
Comments: _____ _____			
OBSERVERS			
Name/SSN:		Name/SSN:	
Name/SSN:		Name/SSN:	
EVALUATOR			
Evaluator (Print): _____		Date: _____	
Evaluator Signature: _____			

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-053 JPM REVISION: 3a	JPM TITLE: Respond to a Failed Power Range Channel N-44
---	---

EVALUATOR DIRECTION SHEET

TASK STANDARD: The failed nuclear instrumentation and power range channel is bypassed per procedure.

RECOMMENDED STARTING LOCATION: Control Room

DIRECTIONS: You are to respond to a failed power range channel.

INITIAL CONDITIONS: The plant is operating at 46% power following the failure of a power range channel. The actions required to stabilize the plant following the failure have been taken. Reactor power, turbine power and Tavg are all stable at their current values. Tavg is within one degree of Tref, and the control rods are in manual. The bypass feedwater regulating valves are in manual. All other systems are operating normally.

INITIATING CUE: Your supervisor directs you to bypass the failed power range channel using the appropriate procedure.

REFERENCES: 2OM-53C.4.2.2.1C Issue 1A, Rev. 6

TOOLS: None

HANDOUT: AOP-2.2.1C

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Respond to a failed power range channel.

INITIAL CONDITIONS: The plant is operating at 46% power following the failure of a power range channel. The actions required to stabilize the plant following the failure have been taken. Reactor power, turbine power and Tavg are all stable at their current values. Tavg is within one degree of Tref, and the control rods are in manual. The bypass feedwater regulating valves are in manual. All other systems are operating normally.

INITIATING CUE: Your supervisor directs you to bypass the failed power range channel using the appropriate.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-053 JPM REVISION: 3a	JPM TITLE: Respond to a Failed Power Range Channel N44
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	Setup: Initialize IC-167 and set Control Bank 'D' group step counters at 160 steps.	
1. Obtain procedure.	1.1 Candidate locates AOP-2.2.1C. EVALUATOR CUE: Provide Candidate a copy of AOP-2.2.1C. COMMENTS:	
2. Check if malfunction of one power range channel has occurred.	2.1 Candidate verifies N-44 has failed (high). 2.2 Candidate determines no other power range channel has failed. SIMULATED CUE: Inform Candidate of power range channel indications: N-41 – 46% N-42 – 46% N-43 – 46% N-44 – 120% (offscale high) COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-053 JPM REVISION: 3a	JPM TITLE: Respond to a Failed Power Range Channel N44
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>3.C Within 6 hours remove control power fuses from drawer "A" of channel N-44.</p>	<p>3.1.C Candidate removes control power fuses from N-44 Drawer "A".</p> <div data-bbox="755 520 1409 615" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR NOTE: Candidate may verify control rods in manual and bypass feed reg. valves in manual.</p> </div> <div data-bbox="755 646 1409 720" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: Fuses removed.</p> </div> <p>COMMENTS:</p>	
<p>4.C Place "Rod Stop Bypass Switch" in N-44 position. (NIS Rack)</p>	<p>4.1.C Candidate places "Rod Stop Bypass Switch" in N-44 position.</p> <p>4.2 Candidate verifies Overpower Rod Stop Bypass Status Light is lit.</p> <div data-bbox="735 1087 1393 1182" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: Overpower Rod Stop Bypass Status Light is lit.</p> </div> <p>COMMENTS:</p>	
<p>5. Check reactor power greater than 50%.</p>	<p>5.1 Candidate locates functioning NIS channels and verifies power is less than 50%.</p> <div data-bbox="735 1570 1393 1665" style="border: 1px solid black; padding: 5px;"> <p>SIMULATED CUE: Channels N-41, N-42, and N-43 all indicate 46%.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2CR-053 JPM REVISION: 3a	JPM TITLE: Respond to a Failed Power Range Channel N44
---	--

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>6.C Place "Comparator Channel Defeat Switch" in N-44 position. (NIS Rack)</p>	<p>6.C Candidate places "Comparator Channel Defeat Switch" in N-44 position.</p> <div data-bbox="735 537 1393 653" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>SIMULATED CUE: Comparator Channel Defeat Switch is in N-44 position.</p> </div> <p>COMMENTS:</p>	
<p>7. Ensure vertical board recorders are selected to monitor only operable detectors.</p>	<p>7. Candidate checks NIS vertical board recorders to ensure N-44 is not selected.</p> <p>COMMENTS:</p>	
<p>8. Refer to T.S. 4.2.1.1.b.</p>	<p>8. Candidate reports N-44 bypassed and states that axial flux needs to be monitored per T.S. 4.2.1.1.b.</p> <div data-bbox="735 1373 1393 1488" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: As Supervisor, inform Candidate that another operator will be asked to monitor axial flux and refer to Technical Specifications.</p> </div> <p>COMMENTS:</p>	
<p>STOP TIME: _____</p>		

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-076	JPM TITLE: Isolate AFW During Alternate Safe Shutdown [Abnormal Task]
JPM REVISION: 0b	

K/A REFERENCE: 061A2.05 3.1/3.4

TASK ID: 0241-030-01-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input type="checkbox"/> Perform	<input checked="" type="checkbox"/> Plant Site	<input type="checkbox"/> Annual Requal Exam	<input type="checkbox"/> BVT
<input checked="" type="checkbox"/> Simulate	<input type="checkbox"/> Simulator	<input checked="" type="checkbox"/> Initial Exam	<input checked="" type="checkbox"/> NRC
	<input type="checkbox"/> Classroom	<input type="checkbox"/> OJT/TPE	<input type="checkbox"/> Other:
		<input type="checkbox"/> Training	
		<input type="checkbox"/> Other:	

EVALUATION RESULTS

Performer Name:	Performer SSN:
-----------------	----------------

Time <input type="checkbox"/> Yes	Allotted Time: 15 minutes	Actual Time: _____ minutes
Critical: <input checked="" type="checkbox"/> No		

JPM RESULTS: SAT
 UNSAT (Comments required for UNSAT evaluation)

Comments: _____

OBSERVERS

Name/SSN:	Name/SSN:
Name/SSN:	Name/SSN:

EVALUATOR

Evaluator (Print): _____ Date: _____

Evaluator Signature: _____

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-076

JPM TITLE: Isolate AFW During Alternate Safe Shutdown [Abnormal Task]

JPM REVISION: 0b

EVALUATOR DIRECTION SHEET

TASK STANDARD:

AFW flow is isolated to the 'C' steam generator.

RECOMMENDED

In Plant

STARTING LOCATION:

DIRECTIONS:

You are to simulate (perform) the task of isolating AFW flow to the 'C' steam generator.

INITIAL CONDITIONS:

A deep seated fire has occurred in the cable spreading area just below the Control Room. The NSS has evacuated the Control Room and activated the Alternate Shutdown Panel (ASP). Procedure 2OM-56C.4.D, Part 2 for Nuclear Operator #1 has been completed through Step 10. For the 'C' steam generator AFW throttle valves: 2FWE*HCV100A has been de-energized and is still open, and 2FWE*HCV100B has been de-energized and is closed.

INITIATING CUE:

The NSS directs you to perform 2OM-56C.4.D, Part 2 Step 11 to close 2FWE*HCV100A and report back when you have completed this step.

REFERENCES:

2OM-56C.4.D, Rev. 11

TOOLS:

Simulated allen wrench and pump handle.

HANDOUT:

2OM-56C.4.D, Rev. 11

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Isolate AFW flow to the 'C' steam generator.

INITIAL CONDITIONS: A deep seated fire has occurred in the cable spreading area just below the Control Room. The NSS has evacuated the Control Room and activated the Alternate Shutdown Panel (ASP). Procedure 2OM-56C.4.D, Part 2 for Nuclear Operator #1 has been completed through Step 10. For the 'C' steam generator AFW throttle valves: 2FWE*HCV100A has been de-energized and is still open, and 2FWE*HCV100B has been de-energized and is closed.

INITIATING CUE: The NSS directs you to perform 2OM-56C.4.D, Part 2 Step 11 to close 2FWE*HCV100A and report back when you have completed this step.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-076 JPM REVISION: 0b	JPM TITLE: Isolate AFW During Alternate Safe Shutdown
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: Provide Candidate a copy of procedure 2OM-56C.4.D. </div>	
1. Candidate locates local placard.	1. Candidate locates local placard in South Safeguards 741'. COMMENTS:	
2.C Remove valve cover for [2FWE*HCV100A].	2.C Candidate removes cover from [2FWE*HCV100A]. COMMENTS:	
3. Check hydraulic plunger.	3. Candidate checks hydraulic plunger FULL OUT. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> SIMULATED CUE: The plunger is full out, about 6 inches. </div> COMMENTS:	
4.C Switch three position valve to close.	4.C Candidate switches the three position valve to CLOSE. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> SIMULATED CUE: Pointer UP, handle DOWN. </div> COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-076 JPM REVISION: 0b	JPM TITLE: Isolate AFW During Alternate Safe Shutdown
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
5.C Insert handle onto hydraulic pump.	5.C Candidate inserts handle onto hydraulic pump. COMMENTS:	
6.C Pump handle until valve is closed.	6.1.C Candidate pumps handle. 6.2.C Candidate verifies valve stem moving CLOSED as handle is pumped. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;">SIMULATED CUE: Valve stem is moving closed.</div> COMMENTS:	
7.C Switch three position valve to neutral.	7.C Candidate switches the three position valve to NEUTRAL. COMMENTS:	
8. Replace valve cover for [2FWE*HCV100A].	8. Candidate replaces cover for [2FWE*HCV100A]. COMMENTS:	
9. Report completion to the NSS.	8. Candidate reports task completion to the NSS. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-003 JPM REVISION: 2a	JPM TITLE: Startup A Rod Drive MG Set
---	---------------------------------------

K/A REFERENCE: 001A4.08 3.7/3.4

TASK ID: 0011-005-01-010

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input type="checkbox"/> Perform <input checked="" type="checkbox"/> Simulate	<input checked="" type="checkbox"/> Plant Site <input type="checkbox"/> Simulator <input type="checkbox"/> Classroom	<input type="checkbox"/> Annual Requal Exam <input checked="" type="checkbox"/> Initial Exam <input type="checkbox"/> OJT/TPE <input type="checkbox"/> Training <input type="checkbox"/> Other:	<input type="checkbox"/> BVT <input checked="" type="checkbox"/> NRC <input type="checkbox"/> Other:

EVALUATION RESULTS			
Performer Name:		Performer SSN:	
Time <input type="checkbox"/> Yes Critical: <input checked="" type="checkbox"/> No	Allotted Time: 15 minutes	Actual Time:	minutes
JPM RESULTS: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT (Comments required for UNSAT evaluation)			
Comments: _____ _____			
OBSERVERS			
Name/SSN:		Name/SSN:	
Name/SSN:		Name/SSN:	
EVALUATOR			
Evaluator (Print): _____		Date: _____	
Evaluator Signature: _____			

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-003 JPM REVISION: 2a	JPM TITLE: Startup A Rod Drive MG Set
---	---------------------------------------

EVALUATOR DIRECTION SHEET

TASK STANDARD:

Startup a Rod Drive MG Set.

RECOMMENDED

In Plant

STARTING LOCATION:**DIRECTIONS:**

You are to simulate (perform) the task to Startup a Rod Drive MG Set.

INITIAL CONDITIONS:

The plant is in Mode 3 preparing for reactor startup. The Full Length Rod Control System is being placed in service. Control Rod Drive Set MG21 is operating and the reactor trip breakers are open.

INITIATING CUE:

Your Supervisor directs you to startup Rod Drive Set MG22 and close the generator output breaker per procedure 2OM-1.4.B beginning at Step IV.I. Steps IV.A through IV.H were completed on a previous shift. You are also directed to have the reactor trip breakers closed from the Control Room.

REFERENCES:

2OM-1.4.B, Rev. 3

TOOLS:

None

HANDOUT:

2OM-1.4.B, Rev. 3

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Startup a Rod Drive MG Set

INITIAL CONDITIONS: The plant is in Mode 3 preparing for reactor startup. The Full Length Rod Control System is being placed in service. Rod Drive Set MG21 is operating and the reactor trip breakers are open.

INITIATING CUE: Your Supervisor directs you to startup Rod Drive Set MG22 and close the generator output breaker per procedure 2OM-1.4.B beginning at Step IV.I. Steps IV.A through IV.H were completed on a previous shift. You are also directed to have the reactor trip breakers closed from the Control Room.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-003 JPM REVISION: 2a	JPM TITLE: Startup A Rod Drive MG Set
---	---------------------------------------

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
START TIME: _____		
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: Provide candidate a copy of procedure 2OM-1.4.B. </div>	
<p>1.C Start #2 Rod Drive MG Set by closing it's associated motor circuit breaker.</p>	<p>1.1.C Candidate indicates location of MG Set #2 Motor Circuit Breaker Control Switch and simulates taking it to the CLOSE position.</p> <p>1.2 Candidate indicates that the MG set can be heard accelerating.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: The red close light is LIT. </div> <p>COMMENTS:</p>	
<p>2.C Depress generator field flash pushbutton until MG22 voltmeter indicates approximately 234 VAC.</p>	<p>2.1.C Candidate locates field flash pushbutton.</p> <p>2.2.C Simulates depressing it until the voltage stops rising (approximately 234 VAC).</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: Voltage increased to 234 VAC. </div> <p>COMMENTS:</p>	
<p>3.C Rotate generator MG22 voltage adjust potentiometer clockwise until voltage indicates 260 VAC.</p>	<p>3.1 Candidate locates MG22 generator voltage adjust potentiometer.</p> <p>3.2.C Simulates rotating it clockwise until voltage indicators shows 260 VAC.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: Voltage increases to 260 VAC. </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-003 JPM REVISION: 2a	JPM TITLE: Startup A Rod Drive MG Set
---	---------------------------------------

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>4. Close the reactor trip breakers.</p>	<div data-bbox="743 436 1398 569" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Procedure 2OM-1.4.Q, "Administrative Guidelines For Closing Reactor Trip/Bypass Breakers" has been completed.</p> </div> <p>4.1 Candidate requests Control Room Reactor Operator to CLOSE the reactor trip breakers.</p> <div data-bbox="743 646 1398 705" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Reactor trip breakers are closed.</p> </div> <p>COMMENTS:</p>	
<p>5.C Rotate the MG22 generator circuit breaker to the close position.</p>	<p>5.1.C Candidate simulates turning MG22 generator circuit breaker to CLOSE.</p> <div data-bbox="760 1161 1398 1220" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: The red close light is LIT.</p> </div> <p>COMMENTS:</p>	
<p>6. Determine voltage difference between the two generators is less than 5.0 volts.</p>	<p>6.1 Candidate locates MG21 set voltage indicator.</p> <p>6.2 Observe difference between it and MG22 set.</p> <div data-bbox="737 1598 1433 1677" style="border: 1px solid black; padding: 5px;"> <p>EVALUATOR CUE: Voltage on MG21 set is 260 VAC.</p> </div> <p>COMMENTS:</p>	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-003 JPM REVISION: 2a	JPM TITLE: Startup A Rod Drive MG Set
---	---------------------------------------

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>7.C Place MG22 synchronize switch to the "ON" position.</p>	<p>7.1 Candidate locates MG22 synchronize switch.</p> <p>7.2.C Simulates placing it in the "ON" position.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: MG22 generator output breaker red light is LIT and the generators are synchronized.</p> </div> <p>COMMENTS:</p>	
<p>8. Return MG22 synchronize switch to the "OFF" position.</p>	<p>8.1 Candidate simulates placing MG22 synchronize switch in the "OFF" position.</p> <p>COMMENTS:</p>	
<p>STOP TIME: _____</p>		

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-021 JPM REVISION: 4a	JPM TITLE: Shutdown Uninterruptible Power Supply [UPS*VITBS2-3]
---	---

K/A REFERENCE: 057AA1.01 3.7/3.7

TASK ID: 0361-005-06-013

JPM APPLICATION: REQUALIFICATION INITIAL EXAM TRAINING
 FAULTED JPM ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
<input type="checkbox"/> Perform <input checked="" type="checkbox"/> Simulate	<input checked="" type="checkbox"/> Plant Site <input type="checkbox"/> Simulator <input type="checkbox"/> Classroom	<input type="checkbox"/> Annual Requal Exam <input checked="" type="checkbox"/> Initial Exam <input type="checkbox"/> OJT/TPE <input type="checkbox"/> Training <input type="checkbox"/> Other:	<input type="checkbox"/> BVT <input checked="" type="checkbox"/> NRC <input type="checkbox"/> Other:

EVALUATION RESULTS			
Performer Name:		Performer SSN:	
Time <input type="checkbox"/> Yes Critical: <input checked="" type="checkbox"/> No	Allotted Time: 15 minutes	Actual Time: minutes	
JPM RESULTS: <input type="checkbox"/> SAT <input type="checkbox"/> UNSAT (Comments required for UNSAT evaluation)			
Comments: _____ _____			
OBSERVERS			
Name/SSN:		Name/SSN:	
Name/SSN:		Name/SSN:	
EVALUATOR			
Evaluator (Print): _____		Date: _____	
Evaluator Signature: _____			

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-021
JPM REVISION: 4a

JPM TITLE: Shutdown Uninterruptible Power Supply [UPS*VITBS2-3]

EVALUATOR DIRECTION SHEET

TASK STANDARD:

Uninterruptible Power Supply [UPS*VITBS2-3] is removed from service with the static switch isolated.

RECOMMENDED
STARTING LOCATION:

In Plant

DIRECTIONS:

You are to simulate (perform) the task to Shutdown Uninterruptible Power Supply [UPS*VITBS2-3].

INITIAL CONDITIONS:

- Mode 1, 30% power.
- Annunciator A1-1C "VITAL BUS 2-3 OPERATION/TROUBLE" has alarmed.
- The corrective actions of 2OM-38.4.AAA have been completed and it is necessary to transfer Vital Bus 2-3 to its alternate power source and shutdown the Inverter/Rectifier portion of UPS 2-3.

INITIATING CUE:

Your Supervisor directs you to remove Uninterruptible Power Supply [UPS*VITBS2-3] from service and isolate the static switch. All initial conditions of 2OM-38.4.J are satisfied.

REFERENCES:

2OM-38.4.J, Rev. 3

TOOLS:

None.

HANDOUT:

2OM-38.4.J, Rev. 3

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

* THIS SHEET TO BE GIVEN TO CANDIDATE *

Read:

TASK: Shutdown Uninterruptable Power Supply [UPS*VITBS2-3].

INITIAL CONDITIONS:

- Mode 1, 30% power.
- Annunciator A1-1C "VITAL BUS 2-3 OPERATION/TROUBLE" has alarmed.
- The corrective actions of 2OM-38.4.AAA have been completed and it is necessary to transfer Vital Bus 2-3 to its alternate power source and shutdown the Inverter/Rectifier portion of UPS 2-3.

INITIATING CUE:

Your Supervisor directs you to remove Uninterruptable Power Supply [UPS*VITBS2-3] from service and isolate the static switch. All initial conditions of 2OM-38.4.J are satisfied.

- At this time, ask the evaluator any questions you have on this JPM.
- When satisfied that you understand the assigned task, announce "I am now beginning the JPM".
- Simulate performance or perform as directed the required task.
Point to any indicator or component you verify or check and announce your observations.
- After determining the Task has been met announce " I have completed the JPM".
Then hand this sheet to the evaluator.

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-021 JPM REVISION: 4a	JPM TITLE: Shutdown Uninterruptible Power Supply [UPS*VITBS2-3]
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: Provide Candidate a copy of 20M-38 4 I </div>	
2. Verify Sync Loss indicating light is 'OFF'.	2.1 Candidate locates Sync Loss indicating light and verifies that it is 'OFF'. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: The Sync Loss indicating light is OFF </div> COMMENTS:	
3. Notify NSS/ANSS to log TS 3.8.2.1 Action Statement entry.	3.1 Candidate notifies ANSS/NSS to log Tech. Spec. 3.8.2.1 Action Statement 'c' entry in the NOMS Daily Journal. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: The NSS will make the entry. </div> COMMENTS:	
4.C Transfer loads to the Static Switch.	4.1.C Candidate locates and depresses lower Static Switch DS118 pushbutton to transfer the static switch. 4.2 Candidate verifies static switch in the alternate position by observing Static Switch DS118 red indicating light 'ON'. <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> EVALUATOR CUE: Static switch red indicating light is ON and the amber light is OFF. </div> COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 2PL-021 JPM REVISION: 4a	JPM TITLE: Shutdown Uninterruptible Power Supply [UPS*VITBS2-3]
---	---

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
<p>5.C Place Manual Bypass Switch to the BYPASS position.</p>	<p>5.1.C Candidate locates and places the Manual Bypass Switch S5 to the 'BYPASS' position.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: Switch is in BYPASS.</p> </div> <p>COMMENTS:</p>	
<p>6.C Isolate the Inverter/Rectifier.</p>	<p>6.1.C Candidate locates and OPENS [UPS*VITBS2-3] breaker CB 131, DC Input Breaker.</p> <p>6.2.C Candidate locates and OPENS [UPS*VITBS2-3] breaker CB 132, AC Input Breaker.</p> <p>6.3.C Candidate locates and OPENS [UPS*VITBS2-3] breaker CB 133, Static Switch AC Output Breaker.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: If asked, all amber lights on the mimic panel de-energize. The static switch is to be isolated per the initiating cue.</p> </div> <p>COMMENTS:</p>	
<p>7.C Secure the Static Switch.</p>	<p>7.1.C Candidate locates and OPENS [UPS*VITBS2-3] Breaker CB 2, Static Switch Bypass Input.</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>EVALUATOR CUE: Another Operator will place the spare battery charger in service.</p> </div> <p>COMMENTS:</p>	
<p>STOP TIME: _____</p>		