OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-513 JPM REVISION: 2b	JPM TITLE: Start [1RC-P-1A], Reactor Coolant Pump

K/A REFERENCE: 003 A2.02 3.7/3.9
003 A3.04 3.6/3.6
003 A4.06 2.9/2.9

TASK ID: 0062-001-01-013

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☒ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☒ Perform ☐ Simulate	☐ Plant Site ☒ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ 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: 1CR-513 JPM REVISION: 2b	JPM TITLE: Start [1RC-P-1A], Reactor Coolant Pump

EVALUATOR DIRECTION SHEET

TASK STANDARD:	[1RC-P-1A], Reactor Coolant Pump '1A' is started and proper operation is verified.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to start [1RC-P-1A], '1A' Reactor Coolant Pump.
INITIAL CONDITIONS:	The plant is in Mode 3, preparing for entry into Mode 2. Procedure 1OM-50.4.D, "Reactor Startup From Mode 3 to Mode 2" is being performed in preparation for a reactor startup. Currently [1RC-P-1C], Reactor Coolant Pump '1C' is in operation. Per step B.1.e.2 of 1OM-50.4.D, all RCP's must be in operation to proceed with the startup. Procedure 1OM-6.4.A, "Reactor Coolant Pump Startup" has been commenced and all steps through step IV.A.13.e have been performed for the '1A' RCP. All systems and components are operable and in NSA unless otherwise indicated.
INITIATING CUE:	Your Supervisor directs you to perform 1OM-6.4.A, Step IV.A.14 for [1RC-P-1A], Reactor Coolant Pump '1A'.
REFERENCES:	1OM-50.4.D, Rev. 37 1OM-6.4.A, Rev. 16 1OM-6.4.ACR Issue 4, Rev. 2
TOOLS:	Stopwatch
HANDOUT:	1OM-6.4.A

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK: Start [1RC-P-1A], Reactor Coolant Pump '1A'.

INITIAL CONDITIONS: The plant is in Mode 3, preparing for entry into Mode 2. Procedure 1OM-50.4.D, "Reactor Startup From Mode 3 to Mode 2" is being performed in preparation for a reactor startup. Currently [1RC-P-1C], Reactor Coolant Pump '1C' is in operation. Per step B.1.e.2 of 1OM-50.4.D, all RCP's must be in operation to proceed with the startup. Procedure 1OM-6.4.A, "Reactor Coolant Pump Startup" has been commenced and all steps through step IV.A.13.e have been performed for the '1A' RCP. All systems and components are operable and in NSA unless otherwise indicated.

INITIATING CUE: Your Supervisor directs you to perform 1OM-6.4.A, Step IV.A.14 for [1RC-P-1A], Reactor Coolant Pump '1A'.

☐ 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: 1CR-513 JPM REVISION: 2b	JPM TITLE: Start [1RC-P-1A], Reactor Coolant Pump

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
	START TIME: _____	
	Setup: Initialize IC-110 (188). Secure '1A' & '1B' RCP's. MONV YRCPRP(1); TRENDAN RCPARUN on RO IPC terminal. **SIMULATION CUES are not required for PERFORM JPM's.**	
1. Candidate obtains procedure.	1.1 Candidate locates 1OM-6.4.A. **EVALUATOR CUE:** Provide Candidate a copy of 1OM-6.4.A completed through step IV.A.13.e. COMMENTS:	
2. Candidate verifies cold leg temperature.	2.1 Candidate uses any cold leg temperature instrumentation to verify temperature > 329°F. **SIMULATION CUE:** All non-isolated loop cold leg temperatures are above 329°F. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-513 JPM REVISION: 2b	JPM TITLE: Start [1RC-P-1A], Reactor Coolant Pump

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
3.C Place 1RC-P-1A control switch to START.	3.1 Candidate locates 1RC-P-1A control switch. 3.2.C Candidate places 1RC-P-1A control switch to START. **EVALUATOR NOTE:** Candidate should use some means of timing the RCP start from the start of the lift oil pump. 3.3 Candidate records time control switch placed in START. COMMENTS:	
4. Verify 1RC-P-1A lift oil pump running.	4.1 Candidate locates 1RC-P-1A lift oil pump RED running light. **SIMULATION CUE:** Lift Oil Pump RED indicating light is lit. **SIMULATION CUE:** If asked, No. 1 seal leakoff flow is > 0.2 GPM and No. 1 seal ΔP is > 200 PSID. COMMENTS:	
5. Verify 1RC-P-1A starts between 114 - 126 seconds.	5.1 Candidate locates RED running light and verifies it illuminates between 114 - 126 seconds after starting the lift oil pump. **SIMULATION CUE:** After 120 second time delay, inform Candidate that the RED running light is lit. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-513 JPM REVISION: 2b	JPM TITLE: Start [1RC-P-1A], Reactor Coolant Pump

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
6. Verify 1RC-P-1A post start response.	6.1 Candidate locates 1RC-P-1A ammeter. **EVALUATOR NOTE:** Candidate should use some means of timing the decay of starting amps. If asked for assistance with various timings, provide assistance as additional Operator ***specifically*** for timing. 6.2 Candidate verifies 1RC-P-1A amps drop off in 10 - 30 seconds. **SIMULATION CUE:** Inform Candidate that starting amps begin to decay within the 10 - 30 second window. 6.3 Candidate monitors lift oil pump for auto shutoff 47.5 - 52.5 seconds after RCP start by monitoring lift oil pump green light. **SIMULATION CUE:** Lift oil pump GREEN light lit 50 seconds after RCP start. COMMENTS:	
7. Respond to high vibration alarms. **FAULTED PATH** **(high pump vibration)**	**SIMULATION CUE:** When 1RC-P-1A amps return to normal, inform Candidate that annunciators A3-126 & 127 have just alarmed. 7.1 Candidate identifies high vibration alarms. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-513 JPM REVISION: 2b	JPM TITLE: Start [1RC-P-1A], Reactor Coolant Pump

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
8. Candidate locates procedure for annunciator A3-127.	8.1 Candidate locates ARP A3-127 (1OM-6.4.ACR). 8.2 Candidate locates RCP vibration monitors. **EVALUATOR NOTE:** Candidate may attempt to dispatch another Operator to check RCP vibrations. If so, inform Candidate that no other Operators are currently available. 8.3 Candidate verifies high vibration is on 1RC-P-1A. 8.4 Candidate verifies GREEN LED is ON (proper operation). 8.5 Candidate verifies valid alarm (shaft > 20 mils or frame > 5 mils). **SIMULATION CUE:** Inform Candidate that shaft vibration is 21 mils and frame vibration is 5.5 mils. COMMENTS:	
9.**C** Stop 1RC-P-1A.	9.1 Candidate determines that the plant is not in Mode 1 or 2. 9.2.**C** Candidate places 1RC-P-1A control switch to STOP. **SIMULATION CUE:** Inform Candidate that '1A' RCP RED light is off, WHITE light is lit, and 'A' loop flow is dropping. **EVALUATOR CUE:** Inform Candidate that the JPM is complete. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-044 JPM REVISION: 7b	JPM TITLE: Fill [1SI-TK-1A], Accumulator '1A'

K/A REFERENCE: 006 A1.13 3.5/3.7 TASK ID: 0111-006-01-013

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☐ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☒ Perform ☐ Simulate	☐ Plant Site ☒ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ 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: 1CR-044 JPM REVISION: 7b	JPM TITLE: Fill [1SI-TK-1A], Accumulator '1A'

EVALUATOR DIRECTION SHEET

TASK STANDARD:	[1SI-TK-1A] at 75% level or 650 psig, whichever occurs first, and fill system is returned to normal alignment.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to fill [1SI-TK-1A], SI Accumulator '1A'.
INITIAL CONDITIONS:	The plant is in Mode 1 at 17% power with all systems in NSA. Annunciators A1-78 and A1-79, Safety Injection Accumulator '1A' Level High-Low CH I (and CH II) alarmed within the last 5 minutes. Currently, [1SI-TK-1A] level is 61% and pressure is 605 PSIG.
INITIATING CUE:	Your Supervisor directs you to fill [1SI-TK-1A], '1A' Accumulator to 70% using 1OM-11.4.E beginning with Step A.4. [1SI-41], accumulator fill line isolation valve is open and properly manned and [1SI-38], Hydro Test Pump Suction Isolation valve is open.
REFERENCES:	1OM-11.4.E, Rev. 7 1OM-11.4.AAO Issue 3, Rev. 0 1OM-11.4.AAP Issue 3, Rev. 0
TOOLS:	None
HANDOUT:	1OM-11.4.E

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK: Fill [1SI-TK-1A], SI Accumulator '1A'.

INITIAL CONDITIONS: The plant is in Mode 1 at 17% power with all systems in NSA. Annunciators A1-78 and A1-79, Safety Injection Accumulator '1A' Level High-Low CH I (and CH II) alarmed within the last 5 minutes. Currently, [1SI-TK-1A] level is 61% and pressure is 605 PSIG.

INITIATING CUE: Your Supervisor directs you to fill [1SI-TK-1A], '1A' SI Accumulator to 70% using 1OM-11.4.E beginning with Step A.4. [1SI-41], Accumulator Fill Line Isolation Valve is open and properly manned and [1SI-38], Hydro Test Pump Suction Isolation valve is open.

☐ 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: 1CR-044 JPM REVISION: 7b	JPM TITLE: Fill [1SI-TK-1A], Accumulator '1A'

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
	START TIME: _____	
	Setup: Initialize IC-105 or 129. **SIMULATION CUES are not required for PERFORM JPM's.**	
1. Candidate obtains procedure.	1. Candidate locates 1OM-11.4.E. **EVALUATOR CUE:** Provide Candidate a copy of 1OM-11.4.E. COMMENTS:	
2. Note [1SI-TK-1A] level.	2. Candidate notes [1SI-TK-1A] level in order to determine level change due to makeup. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-044 JPM REVISION: 7b	JPM TITLE: Fill [1SI-TK-1A], Accumulator '1A'

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
3.**C** Open fill isolation valve.	3.1 Candidate locates fill valve control switch [MOV-1SI-851A]. 3.2.**C** Candidate places control switch to OPEN. 3.3 Candidate verifies RED open indicating light lit. **SIMULATION CUE:** RED light is lit. COMMENTS:	
4. Place/verify Hydro Test Pump Speed Controller at 0% output.	4.1 Candidate locates HIC-1SI-947 and adjusts to/verifies at 0%. **SIMULATION CUE:** Controller at 0%. COMMENTS:	
5.**C** Start Hydro Test Pump.	5.1 Candidate locates [1SI-P-2], Hydro Test Pump control switch. 5.2.**C** Candidate places control switch to START. 5.3 Candidate verifies RED running indicating light lit. **SIMULATION CUE:** RED light is lit. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-044 JPM REVISION: 7b	JPM TITLE: Fill [1SI-TK-1A], Accumulator '1A'

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
6.**C** Increase Hydro Test Pump speed.	6.1.**C** Candidate locates HIC-1SI-947 and adjusts speed to > 0% but ≤ 10%. **SIMULATION CUE:** After Candidate checks level indications, **CUE** that level is now at 70% and pressure is 645 psig. COMMENTS:	
7. Adjust Hydro Test Pump Speed Controller to 0% output.	7.1 When desired level is reached, Candidate locates HIC-1SI-947 and adjusts to 0% output. **SIMULATION CUE:** Controller is at 0%. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-044 JPM REVISION: 7b	JPM TITLE: Fill [1SI-TK-1A], Accumulator '1A'

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
8.**C** Stop Hydro Test Pump.	8.1 Candidate locates [1SI-P-2], Hydro Test Pump control switch. 8.2.**C** Candidate places control switch to STOP. **SIMULATION CUE:** WHITE light LIT while in STOP, extinguishes in P-T-L. 8.3 Candidate places control switch in P-T-L. **EVALUATOR CUE:** If asked, provide Independent Verification of [1SI-P-2] in P-T-L and documentation in NOMS Daily Journal. COMMENTS:	
9.**C** Close fill isolation valve.	9.1 Candidate locates 1SI-TK-1A fill valve control switch [MOV-1SI-851A]. 9.2.**C** Candidate places control switch to CLOSE. 9.3 Candidate verifies GREEN closed indicating light lit. **SIMULATION CUE:** GREEN light is lit. **EVALUATOR CUE:** If asked, provide Independent Verification of [MOV-1SI-851A] closed and documentation in NOMS Daily Journal. 9.4 Candidate notes final Accumulator level. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-511 JPM REVISION: 1b	JPM TITLE: Emergency Borate the Reactor Coolant System

K/A REFERENCE:
004 A2.14 3.8/3.9
024 AA1.17 3.9/3.9
024 AA1.18 3.7/3.6
024 AA2.01 3.8/4.1

TASK ID:
0071-012-01-013
0071-038-01-013

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☒ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☒ Perform ☐ Simulate	☐ Plant Site ☒ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ 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: 1CR-511 JPM REVISION: 1b	JPM TITLE: Emergency Borate the Reactor Coolant System

EVALUATOR DIRECTION SHEET

TASK STANDARD:	Emergency boration flow is established at greater than 105 gpm.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to simulate (perform) emergency borating the Reactor Coolant System.
INITIAL CONDITIONS:	The plant is in Mode 1 at 17% power with all systems in NSA. An event has occurred that caused Annunciator A4-124, Rod Control Bank 'D' Low-Low to alarm. This is a valid alarm.
INITIATING CUE:	Your Supervisor directs you to respond to the annunciator by emergency borating the RCS.
REFERENCES:	1OM-7.4.S, Rev. 4
TOOLS:	None
HANDOUT:	1OM-7.4.S

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 is in Mode 1 at 17% power with all systems in NSA. An event has occurred that caused Annunciator A4-124, Rod Control Bank 'D' Low-Low to alarm. This is a valid alarm.
INITIATING CUE:	Your Supervisor directs you to respond to the annunciator by emergency borating the RCS.

☐ 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: 1CR-511 JPM REVISION: 1b	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: _____	
	Setup: Initialize IC-107, 123 or 129. Position CB "D" group step counters at 26 steps. **SIMULATION CUES are not required for PERFORM JPM's.**	
1. Candidate obtains procedure.	1.1 Candidate locates 1OM-7.4.S, Emergency Boration. COMMENTS:	
2. Ensure at least one charging pump is running.	2.1 Candidate locates charging pump controls and verifies one pump running. **SIMULATION CUE:** [1CH-P-1A] RED light is lit. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-511 JPM REVISION: 1b	JPM TITLE: Emergency Borate the Reactor Coolant System

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
3.C Open [MOV-1CH-350], Emergency Boration Isolation Valve. **FAULTED PATH** **(MOV-1CH-350 does not open)**	3.1 Candidate locates [MOV-1CH-350] control switch. 3.2.C Candidate places control switch in the OPEN position. 3.3 Candidate verifies the red OPEN light lit. **SIMULATION CUE:** RED light is NOT lit. The GREEN light is still energized. 3.4.C Candidate determines that [MOV-1CH-350] has not opened. **EVALUATOR NOTE:** Step may not be performed until procedurally driven by step 4 (JPM step 5). **SIMULATION CUE:** If the Candidate checks for emergency boration flow on [FI-1CH-110], **CUE** that the meter indicates ZERO gpm. COMMENTS:	
4. Start the in-service boric acid transfer pump in fast speed.	**EVALUATOR NOTE:** This step may be omitted. 4.1 Candidate identifies the in-service Boric Acid Transfer Pump. 4.2 Candidate places pump in FAST speed. 4.3 Candidate verifies FAST (RED) light is lit. **SIMULATION CUE:** FAST RED light is lit. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-511 JPM REVISION: 1b	JPM TITLE: Emergency Borate the Reactor Coolant System

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
5. Verify emergency boration flow greater than 30 gpm.	**EVALUATOR NOTE:** This step may be omitted. 5.1 Candidate checks emergency boration flow indicator [FI-1CH-110] greater than 30 gpm. **SIMULATION CUE:** Emergency boration flow is approximately zero gpm. COMMENTS:	
6.**C** Align the RWST to the charging pump suction.	**EVALUATOR NOTE:** If the Candidate tries to have [MOV-1CH-350] locally opened or align the blender to the charging pump suction, **CUE** that the NSS desires to use the RWST flowpath. 6.1 Candidate locates [MOV-1CH-115B] or [MOV-1CH-115D]. 6.2.**C** Candidate places at least one control switch to the OPEN position. 6.3 Candidate verifies the red OPEN light lit. **SIMULATION CUE:** RED light is lit. 6.4 Candidate locates [MOV-1CH-115C] or [MOV-1CH-115E]. 6.5.**C** Candidate places at least one control switch to the CLOSE position. 6.6 Candidate verifies the green CLOSE light lit. **SIMULATION CUE:** GREEN light is lit. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-511 JPM REVISION: 1b	JPM TITLE: Emergency Borate the Reactor Coolant System

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
7.**C** Take manual control of [FCV-1CH-122] and establish > 105 gpm charging flow.	7.1 Candidate locates [FCV-1CH-122] control station. 7.2.**C** Candidate depresses MANUAL pushbutton and establishes > 105 gpm as indicated on [FI-1CH-122A]. **SIMULATION CUE:** Initially inform Candidate that charging flow is 50 gpm. After opening the valve further, inform Candidate that flow is 110 gpm. COMMENTS:	
8. Verify pressurizer pressure < 2335 psig.	8.1 Candidate locates [PI-1RC-455, 456, 457] and verifies all are < 2335 psig. **SIMULATION CUE:** Pressurizer pressure is 2250 psig. COMMENTS:	
9. Verify letdown diverts to the BRS if necessary.	9.1 Candidate monitors VCT level using [LI-1CH-115] and verifies [LCV-1CH-112 & 115A] divert as necessary. **SIMULATION CUE:** VCT level is 35%. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-511 JPM REVISION: 1b	JPM TITLE: Emergency Borate the Reactor Coolant System

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
10. Verify control rods return to their normal manuvering band above the RIL.	10.1 Candidate locates control rod height on RPI or group demand counters. 10.2 Candidate verifies that the control rods are withdrawn or manually withdraws them above the RIL. **SIMULATION CUE:** Annunciator A4-124 has cleared. **EVALUATOR NOTE:** If Candidate continues with the procedure, inform that JPM is complete. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-078 JPM REVISION: 2b	JPM TITLE: Manually Actuate CIB

K/A REFERENCE: 026 A3.01 4.3/4.5
026 A4.01 4.5/4.3

TASK ID: 0131-006-01-013

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☒ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☒ Perform ☐ Simulate	☐ Plant Site ☒ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:	Performer SSN:

Time Critical: ☐ Yes ☒ No	Allotted Time: 5 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: 1CR-078 JPM REVISION: 2b	JPM TITLE: Manually Actuate CIB

EVALUATOR DIRECTION SHEET

TASK STANDARD:	Manually initiate CIB, manually start 1QS-P-1A, and secure the Reactor Coolant Pumps in accordance with EOP Attachment 1-K.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to check CIB and CNMT Spray Status.
INITIAL CONDITIONS:	A large LOCA has occurred coincident with the loss of SSST '1B' offsite power. The No. 2 Diesel Generator failed immediately following startup.
INITIATING CUE:	Your Supervisor directs you to complete EOP Attachment 1-K, Step 7 to Check CIB and CNMT Spray Status.
REFERENCES:	OM 1.53A.1.E-0, Issue 1C, Rev. 0 OM 1.53A.1 Attachment 1-K, Issue 1C, Rev. 0
TOOLS:	None
HANDOUT:	OM 1.53A.1 Attachment 1-K

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK:	Check CIB and CNMT Spray Status.
INITIAL CONDITIONS:	A large LOCA has occurred coincident with the loss of SSST '1B' offsite power. The No. 2 Diesel Generator failed immediately following startup.
INITIATING CUE:	Your Supervisor directs you to complete EOP Attachment 1-K, Step 7 to Check CIB and CNMT Spray Status.

☐ 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: 1CR-078 JPM REVISION: 2b	JPM TITLE: Manually Actuate CIB

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
	START TIME: _____	
	Setup: Initialize IC-111. **SIMULATION CUES are not required for PERFORM JPM's.**	
1. Candidate obtains procedure.	1.1 Candidate locates EOP Attachment 1-K. **EVALUATOR CUE:** Provide Candidate a copy of EOP Attachment 1-K. COMMENTS:	
2. Check CIB and CNMT Spray Status. **FAULTED PATH** **(CNMT pressure NOT < 8 psig)**	2.1 Candidate locates [PR-LM-100A], Containment Pressure Recorder (VB-A). 2.2 Candidate checks if CNMT pressure has remained less than 8 psig. **EVALUATOR NOTE:** If Candidate asks the status of CIB actuation, inform that CNMT pressure has been greater than 8 psig for 5 minutes. **SIMULATION CUE:** [PR-LM-100A] trace shows that pressure suddenly increased to a peak of 25 psig and has slowly decreased to approximately 22 psig. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-078 JPM REVISION: 2b	JPM TITLE: Manually Actuate CIB

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
3.**C** Verify CIB initiated.	3.1 Candidate checks components properly aligned and determines CIB components not positioned as required. **EVALUATOR NOTE:** Candidate may actuate either train first followed by the opposite train. 3.2 Candidate locates pushbuttons for Train 'A' CIB (BB-A). 3.3.**C** Candidate DEPRESSES both pushbuttons simultaneously. 3.4 Candidate locates pushbuttons for Train 'B' CIB (BB-A). 3.5.**C** Candidate DEPRESSES both pushbuttons simultaneously. 3.6 Candidate checks all indicating lights with BLUE CIB mark LIT. **SIMULATION CUE:** (If Candidate checks Blue CIB marked equipment in step 3.6 above.) All indicating lights with BLUE CIB mark lit EXCEPT: All equipment powered from DF power source; [1RS-P-1A] (210 second time delay) [1RS-P-2A] (225 second time delay) [1QS-P-1A], Quench Spray Pump 3.7 Candidate identifies [1QS-P-1A] failed to start. 3.8 Candidate locates [1QS-P-1A] control switch. 3.9.**C** Candidate places control switch to START. **SIMULATION CUE:** [1QS-P-1A] RED light lit, pumps amps and discharge pressure indicated. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-078 JPM REVISION: 2b	JPM TITLE: Manually Actuate CIB

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
4.**C** Stop all RCP's.	4.1 Candidate locates RCP control switches and recognizes that [1RC-P-1C] is already stopped due to loss of power. 4.2.**C** Candidate places [1RC-P-1A] and [1RC-P-1B] control switches in STOP. **EVALUATOR NOTE:** Candidate may choose to place control switches in Pull-To-Lock following STOP. **SIMULATION CUE:** All RCP RED indicating lights are extinguished, RCP pump amps at zero, RCS flow dropping. COMMENTS:	
5. Verify CREBAPS actuation.	5.1 Candidate contacts UNIT 2 to verify proper CREBAPS equipment operation. **EVALUATOR CUE:** Inform Candidate as Unit 2 Operator that all CREBAPS equipment is functioning properly. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

K/A REFERENCE: 062 A4.07 3.1/3.1 TASK ID: 0261-018-01-013

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☐ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☒ Perform ☐ Simulate	☐ Plant Site ☒ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ 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: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

EVALUATOR DIRECTION SHEET

TASK STANDARD:	Main generator synchronized to the grid with approximately 40 MWe load on the turbine.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to synchronize and load the main generator.
INITIAL CONDITIONS:	The plant is in Mode 1 at 17% power. The main turbine is operating at 1800 rpm in Governor Valve Control. Turbine pedestal checks have been completed and the bus side disconnects for PCB-331 and PCB-341 are closed. 1OM-52.4.A has been completed through step 60.
INITIATING CUE:	Your Supervisor directs you to synchronize the main generator beginning with step 61 of 1OM-52.4.A.
REFERENCES:	1OM-52.4.A, Rev. 38
TOOLS:	None
HANDOUT:	1OM-52.4.A

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK: Synchronize and load the main generator.

INITIAL CONDITIONS: The plant is in Mode 1 at 17% power. The main turbine is operating at 1800 rpm in Governor Valve Control. Turbine pedestal checks have been completed and the bus side disconnects for PCB-331 and PCB-341 are closed. 1OM-52.4.A has been completed through step 60.

INITIATING CUE: Your Supervisor directs you to synchronize the main generator beginning with step 61 of 1OM-52.4.A.

☐ 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: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
	START TIME: _____	
	Setup: Initialize IC-129. **SIMULATION CUES are not required for PERFORM JPM's.**	
1. Candidate obtains procedure.	1.1 Candidate locates 1OM-52.4.A. **EVALUATOR CUE:** Provide Candidate a copy of 1OM-52.4.A completed up to step 61. COMMENTS:	
2. Excite the generator field.	**EVALUATOR NOTE:** If asked, inform Candidate that bus ductwork was not opened to atmosphere. 2.1 Candidate places exciter circuit breaker [ACB-41] in the CLOSED position. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
3. Adjust Exciter Base Adjuster to raise generator voltage to approximately 107.5 volts.	3.1 Candidate places Exciter Base Adjuster in RAISE to adjust main generator voltage to approximately 107.5 volts. COMMENTS:	
4. Place voltage regulator in service	4.1 Candidate places Voltage Regulator Transfer Switch in TEST position. 4.2 Candidate verifies regulator OFF indicating lamp (green) is OFF and TEST lamp (amber) is on. 4.3 Candidate nulls Voltage Regulator Balance Volts meter using the Main Generator Voltage Adjuster. 4.4 Candidate verifies full range of control by running the Main Generator Voltage Adjuster control switch to minimum and then to maximum. 4.5 Candidate nulls Voltage Regulator Balance Volts meter using the Main Generator Voltage Adjuster. 4.6 Candidate places Voltage Regulator Transfer Switch to ON. 4.7 Candidate verifies amber light is OFF and red light is ON. 4.8 Candidate verifies main generator voltage is approximately 107.5 volts. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT or "U" FOR UNSAT)⇒**	S/U
5. Verify turbine speed is maintained at 1800 rpm.	5.1 Candidate verifies turbine speed is at approximately 1800 rpm on reference display. **EVALUATOR NOTE:** Reference display indicates 1780 rpm. COMMENTS:	
6. Verify PMG Circuit Breaker 1 is Closed.	**EVALUATOR NOTE:** This step was previously performed and signed off in the procedure. 6.1 Candidate verifies PMG Circuit Breaker 1 is Closed. COMMENTS:	
7. Check for generator field grounds.	7.1 Candidate places the Main Field Ground Test Switch in the TEST position. 7.2 Candidate verifies Annunciator A7-117 is OFF. 7.3 Candidate verifies white light above test switch is OFF. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
8. Place [PCB-331] or [PCB-341] Synchronizing Selector in Normal position.	8.1 Candidate places Synchronizing Selector [PCB-331 (PCB-341)] Normal in the Bus No. 3 or Bus No. 4 position. COMMENTS:	
9. Adjust main generator speed to establish synchroscope moving slowly in the clockwise direction.	**EVALUATOR CUE:** Inform Candidate that the NSS desires to use Manual Synchronizing control. 9.1. Candidate raises or lowers turbine speed setter in 1 or 2 rpm increments to adjust main generator speed. 9.2. Candidate depresses the GO pushbutton. COMMENTS:	
10. Check speed and direction of Normal and Emergency synchroscopes.	10.1 Candidate places Synchronizing Selector [PCB-331 (PCB-341)] Emergency in the Bus No. 3 or Bus No. 4 position. 10.2 Candidate verifies speed and direction of Normal and Emergency synchroscopes are the same. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
11. Place [PCB-331] or [PCB-341] Synchronizing Selector in Normal position.	11.1 Candidate places Synchronizing Selector [PCB-331 (PCB-341)] Normal in the Bus No. 3 or Bus No. 4 position. COMMENTS:	
12. Adjust incoming voltage (main generator) approximately 0.5 volts higher than running voltage (grid).	12.1. Candidate adjusts incoming voltage to 0.5 volts higher than running voltage using Main Generator Voltage Adjuster. COMMENTS:	
13. Verify turbine steam dump control in steam pressure mode.	13.1 Candidate verifies turbine steam dump control in steam pressure mode. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
14.**C** Select Manual Synchronizing control.	14.1.**C** Candidate places Synchronizing Mode Selector Switch in MANUAL position. 14.2 Candidate verifies reactor power is between 15 to 18%. COMMENTS:	
15.**C** Verify or adjust VPL between 8% and 10% above indicated governor valve position.	15.1.**C** Candidate verifies or adjusts VPL to between 8% and 10% above indicated governor valve position. COMMENTS:	
16.**C** Set load rate at 200%.	16.1.**C** Candidate sets load rate thumbwheel to 200% per minute load rate. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4a - New JPM REVISION: 0	JPM TITLE: Synchronize the Main Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT or "U" FOR UNSAT)⇒**	S/U
17.**C** Synchronize the main generator.	17.1 Candidate verifies synchroscope is moving slowly in the clockwise direction. 17.2.**C** Candidate turns 345KV [PCB-331 (PCB-341)] breaker switch to CLOSE position and releases when red CLOSE light is ON. 17.3 Candidate checks that the synchroscope locks in at the 12 o'clock position. COMMENTS:	
18. Verify EHC controller picks up 5% load on the turbine.	18.1 Candidate verifies the following: • Turbine pickups 40 MWe of load. • EHC control transfers from speed control to load control. • SPEED CONTROL light on EHC controller is OFF, and • LOAD CONTROL light is ON. **EVALUATOR NOTE:** If Candidate continues with procedure, inform that JPM is complete. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4 - New JPM REVISION: 0	JPM TITLE: Depressurize the RCS Using PORV's

K/A REFERENCE: 010 A4.03 4.0/3.8
038 EA1.05 4.1/4.3

TASK ID: 0531-004-05-013

JPM APPLICATION: ☐ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☐ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☒ Perform ☐ Simulate	☐ Plant Site ☒ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ 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: 1LOT4 - New JPM REVISION: 0	JPM TITLE: Depressurize the RCS Using PORV's

EVALUATOR DIRECTION SHEET

TASK STANDARD:	RCS depressurized with Pressurizer level greater than 75%.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to depressurize the RCS using the Pressurizer PORV's.
INITIAL CONDITIONS:	A tube rupture has occurred on the '1C' steam generator. The operating crew has responded to the event and completed an RCS cooldown in accordance with EOP E-3.
INITIATING CUE:	Your Supervisor directs you to depressurize the RCS in accordance with EOP E-3, Step 14.
REFERENCES:	1OM-53A.1.E-3, Rev. 1
TOOLS:	None
HANDOUT:	1OM-53A.1.E-3

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK:	Depressurize the RCS using the Pressurizer PORV's.
INITIAL CONDITIONS:	A tube rupture has occurred on the '1C' steam generator. The operating crew has responded to the event and completed an RCS cooldown in accordance with EOP E-3.
INITIATING CUE:	Your Supervisor directs you to depressurize the RCS in accordance with EOP E-3, Step 14.

☐ 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: 1LOT4 - New JPM REVISION: 0	JPM TITLE: Depressurize the RCS Using PORV's

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
	START TIME: _____	
	Setup: Initialize IC-130. **SIMULATION CUES are not required for PERFORM JPM's.**	
1. Candidate obtains procedure.	1.1 Candidate locates 1OM-53A.1.E-3. **EVALUATOR CUE:** Provide Candidate a copy of 1OM-53A.1.E-3. COMMENTS:	
2. Verify at least one PRZR PORV available.	**EVALUATOR NOTE:** If asked by Candidate, inform that PCV-1R-455A, PRZR Spray Valve is mechanically bound shut. 2.1 Candidate determines at least one PRZR PORV available by observing PCV-1RC-445C, PCV-1RC-445D and PCV-1RC-456 green lights LIT. **SIMULATION CUE:** PCV-1RC-445C, PCV-1RC-445D and PCV-1RC-456 green lights LIT. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4 - New JPM REVISION: 0	JPM TITLE: Depressurize the RCS Using PORV's

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
3.**C** Open one PRZR PORV.	3.1.**C** Candidate opens PCV-1RC-445C, PCV-1RC-445D or PCV-1RC-456 by placing PORV control switch to OPEN. 3.2. Candidate verifies PRZR PORV opens by observing red light LIT and green light OUT. **SIMULATION CUE:** PCV-1RC-445C, PCV-1RC-445D or PCV-1RC-456 red light LIT and green light OUT. COMMENTS:	
4. Verify PRZR level greater than 75%.	4.1 Candidate verifies PRZR level is greater than 75% on PI-1RC-459, PI-1RC-460 and PI-1RC-461 or IPC display. **SIMULATION CUE:** PRZR level is greater than 75%. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1LOT4 - New JPM REVISION: 0	JPM TITLE: Depressurize the RCS Using PORV's

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	**S/U**
5.**C** Close PRZR PORV.	5.1.**C** Candidate closes PCV-1RC-445C, PCV-1RC-445D or PCV-1RC-456 by placing PORV control switch to CLOSE. 5.2 Candidate verifies PRZR PORV closes by observing green light LIT and red light OUT. **SIMULATION CUE:** PCV-1RC-445C, PCV-1RC-445D or PCV-1RC-456 green light LIT and red light OUT. **EVALUATOR NOTE:**. If Candidate continues with procedure, inform that JPM is complete. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-051 JPM REVISION: 3a	JPM TITLE: Secure Unnecessary Auxiliary Feedwater Pumps

K/A REFERENCE: 061A1.01 3.9/4.2
061A1.05 3.6/3.7

TASK ID: 0241-030-01-013

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☐ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☒ Perform ☐ Simulate	☐ Plant Site ☒ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ 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: 1CR-051 JPM REVISION: 3a	JPM TITLE: Secure Unnecessary Auxiliary Feedwater Pumps

EVALUATOR DIRECTION SHEET

TASK STANDARD:	Secure unnecessary auxiliary feedwater pumps and report status of pumps to Supervisor.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to secure unnecessary auxiliary feedwater pumps following a Hi-Hi S/G level trip.
INITIAL CONDITIONS:	The plant tripped on Hi-Hi S/G level in the '1B' S/G. Operators have stabilized the plant at Step 17b of 1OM-53A.1.ES-0.1. S/G levels are being maintained at 33% ± 5% using all three AFW pumps.
INITIATING CUE:	Your Supervisor directs you to shut down any unnecessary AFW pump(s) in accordance with 1OM-24.4.N, Steps 1 through 4 and report which pump(s) remain(s) in operation.
REFERENCES:	1OM-24.4.N Issue 3, Rev. 4
TOOLS:	None
HANDOUT:	1OM-24.4.N

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK:	Secure unnecessary auxiliary feedwater pumps following a Hi-Hi S/G level trip.
INITIAL CONDITIONS:	The plant tripped on Hi-Hi S/G level in the '1B' S/G. Operators have stabilized the plant at Step 17b of 1OM-53A.1.ES-0.1. S/G levels are being maintained at 33% ± 5% using all three AFW pumps.
INITIATING CUE:	Your Supervisor directs you to shut down any unnecessary AFW pump(s) in accordance with 1OM-24.4.N, Steps 1 through 4 and report which pump(s) remain(s) in operation.

☐ 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: 1CR-051 JPM REVISION: 3a	JPM TITLE: Secure Unnecessary Auxiliary Feedwater Pumps

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
	START TIME: _____	
	Setup: Initialize IC-188. **SIMULATION CUES are not required for PERFORM JPM's.**	
1. Candidate obtains procedure.	1.1 Candidate locates 1OM-24.4.N. **EVALUATOR CUE:** Provide Candidate a copy of 1OM-24.4.N. COMMENTS:	
2. Stabilize S/G levels.	**EVALUATOR NOTE:** For purpose of JPM, all S/G levels are stable in the program band and do not require adjusting. 2.1 Candidate locates S/G level indications. **EVALUATOR NOTE:** Candidate may use any combination of indications: computer, recorders and /or meters. 2.2 Candidate locates [MOV-1FW-151A-F]. 2.3 Candidate throttles [MOV-1FW-151A-F] to stabilize S/G level, as required. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-051 JPM REVISION: 3a	JPM TITLE: Secure Unnecessary Auxiliary Feedwater Pumps

3. Restore S/G levels to program (33%).	**EVALUATOR NOTE:** All S/G levels are stable in the program band (28% - 38%). 3.1 Candidate throttles [MOV-1FW-151A-F] to restore level to 33% without overfeeding and thereby reducing Tavg. **SIMULATION CUE:** All S/G levels are stable at 33% and Tavg is not reduced. COMMENTS:	
4.**C** Place Main Feed Pump control switches in Pull-To-Lock.	4.1 Candidate locates Main Feed Pump control switches. 4.2.**C** Candidate places Main Feed Pump control switches in Pull-To-Lock. **SIMULATION CUE:** Both MFP's are in P-T-L. COMMENTS:	
5. Determine plant conditions stable.	5.1 Candidate monitors Tavg, steam flow/feed flow and S/G levels. **EVALUATOR CUE:** For any requested parameter, **CUE** that it has been stable for the last 10 minutes. 5.2 Candidate determines plant conditions are stable. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-051 JPM REVISION: 3a	JPM TITLE: Secure Unnecessary Auxiliary Feedwater Pumps

6. Determine total AFW flow requirement.	6.1 Candidate locates AFW flow indicators [FI-1FW-100A, B, C]. **SIMULATION CUE:** Indications are as follows: [FI-1FW-100A] - 138 GPM [FI-1FW-100B] - 137 GPM [FI-1FW-100C] - 130 GPM 6.2 Candidate sums AFW flow indications and determines that total flow is greater than 350 gpm. 6.3 Candidate proceeds to procedure step 4.c for greater than 350 gpm total flow. COMMENTS:	
7.**C** Secure turbine driven AFW pump.	7.1 Candidate verifies FW-P-3A (3B) running. **SIMULATION CUE:** [1FW-P-2] auto-start signals are reset. 7.2 Candidate locates [TV-1MS-105A & B]. 7.3.**C** Candidate turns both control switches to Close and holds in position until only the GREEN light remains illuminated. **SIMULATION CUE:** [TV-1MS-105A & B] GREEN lights are lit and RED lights are out. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-051 JPM REVISION: 3a	JPM TITLE: Secure Unnecessary Auxiliary Feedwater Pumps

8.**C** Adjust AFW flow to maintain S/G levels.	**EVALUATOR NOTE:** Depending on S/G level response, if flow adjustments are not necessary this step may be omitted. 8.1 Candidate locates S/G level indications. 10.2 Candidate locates [MOV-1FW-151A-F]. 10.3.**C** Candidate throttles [MOV-1FW-151A-F] to stabilize S/G levels between 28% - 38%. **SIMULATION CUE:** After initial adjustments, all S/G levels are stable at 33%. COMMENTS:	
9.**C** Secure motor driven AFW pump.	9. Candidate verifies all auto start signals for FW-P-3A (3B) are clear. **SIMULATION CUE:** [1FW-P-3A (3B)] auto-start signals are reset. 9.5.**C** Candidate turns control switch to Stop until only the GREEN light remains illuminated. **SIMULATION CUE:** [FW-P-3A or 3B] GREEN light is lit and RED light is out. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1CR-051 JPM REVISION: 3a	JPM TITLE: Secure Unnecessary Auxiliary Feedwater Pumps

	EVALUATOR NOTE: Depending on S/G level response, if flow adjustments are not necessary this step may be omitted.	
10.**C** Adjust AFW flow to maintain S/G level.	10.1 Candidate locates S/G level indications. 10.2 Candidate locates [MOV-1FW-151A-F]. 10.3.**C** Candidate throttles [MOV-1FW-151A-F] to stabilize S/G levels between 28% - 38%. **SIMULATION CUE:** After adjustments, all S/G levels are stable at 33%. COMMENTS:	
9. Report AFW pump status.	9.1 Candidate reports that one motor driven AFW pump remains running. **EVALUATOR NOTE:** If Candidate continues with procedure, inform that JPM is complete. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-506 JPM REVISION: 2c	JPM TITLE: Locally Start the No. 1 Diesel Generator

K/A REFERENCE: 055 EA1.02 4.3/4.4 TASK ID: 0362-003-01-043

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☒ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☐ Perform ☒ Simulate	☒ Plant Site ☐ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ No	Allotted Time: 23 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: 1PL-506 JPM REVISION: 2c	JPM TITLE: Locally Start the No. 1 Diesel Generator

EVALUATOR DIRECTION SHEET

TASK STANDARD:	Locally start the No. 1 Diesel Generator and energize the 4KV 'AE' emergency bus.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to simulate (perform) the task of locally starting the No. 1 Diesel Generator and energize the 4KV 'AE' bus.
INITIAL CONDITIONS:	A station blackout has occurred. 1OM-53A.1.ECA-0.0, "Loss of All AC Power" has been performed to the step where local actions must be taken to restore power.
INITIATING CUE:	Your Supervisor directs you to use EOP Attachment 2-E to start the No. 1 Diesel Generator and ensure that the 4KV 'AE' bus is energized. You are given the key for the No. 1 Diesel Generator.
REFERENCES:	1OM-53.A.1.2-E Issue 1C, Rev. 0
TOOLS:	None
HANDOUT:	EOP Attachment 2-E

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK:	Locally start the No. 1 Diesel Generator and energize the 4KV 'AE' emergency bus.
INITIAL CONDITIONS:	A station blackout has occurred. 1OM 53A.1.ECA-0.0, "Loss of All AC Power" has been performed to the step where local actions must be taken to restore power.
INITIATING CUE:	Your Supervisor directs you to use EOP Attachment 2-E to start the No. 1 Diesel Generator and ensure that the 4KV 'AE' bus is energized. You are given the key for the No. 1 Diesel Generator.

☐ 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: 1PL-506 JPM REVISION: 2b	JPM TITLE: Locally Start the No. 1 Diesel Generator

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
	START TIME: _____	
	EVALUATOR CUE: Provide Candidate a copy of EOP Attachment 2-E.	
1. Establish communications with Control Room.	1.1 Candidate calls the Control Room on PAX or Page Party. COMMENTS:	
2. Clear all start failure alarms on [PNL-EE-EG-1].	2.1 Candidate depresses the alarm reset pushbutton to clear all alarms. **EVALUATOR CUE:** No alarms are present. COMMENTS:	
3.**C** Take local control of the No. 1 EDG.	3.1.**C** Candidate inserts Key 48 into switch and selects the LOCAL position. **EVALUATOR CUE:** Key is in LOCAL. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-506 JPM REVISION: 2b	JPM TITLE: Locally Start the No. 1 Diesel Generator

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
4. Prime the diesel fuel system.	4.1 Candidate depresses the fuel prime pushbutton. **EVALUATOR CUE:** If asked, fuel oil pressure on [PI-EE-205] is 35 psig and [PI-EE-207] is 0 psig. COMMENTS:	
5.C Start EDG engine.	5.1.C Candidate depresses the local start pushbutton and holds until the diesel starts and is self-sustaining. COMMENTS:	
6.C Adjust EDG speed to 900 rpm.	6.1.C Candidate adjustes mechanical governor speed knob to obtain an engine speed of 900 rpm. **EVALUATOR CUE:** EDG speed rises and is stable at 900 rpm. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-506 JPM REVISION: 2b	JPM TITLE: Locally Start the No. 1 Diesel Generator

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
7. Verify DG output voltage.	7.1 Candidate locates EDG output voltmeter on [PNL-DIGEN-1] and reads voltage. **EVALUATOR NOTE:** The intent of this step is to flash the field locally by manual operation of the FFC relay. If Candidate does not energize the EDG output voltmeter, continue to provide the following cue until the voltmeter is energized and the FFC relay plunger has been actuated. **EVALUATOR CUE:** EDG output voltage is zero volts. COMMENTS:	
8.C Have the Control Room flash the EDG field if possible, or locally flash the field.	8.1 Candidate calls the Control Room and asks the Operator to flash the No. 1 EDG field. **EVALUATOR CUE:** The Control Room has flashed the field and EDG output voltage remains at zero volts. 8.2.C Candidate opens the Exciter cabinet door(s) and simulates lifting the plunger on the FFC relay to flash the No. 1 EDG field. **EVALUATOR NOTE:** The FFC relay is located between the left and right Exciter cabinet doors ~6 feet off the ground. **EVALUATOR CUE:** The EDG output voltage rises to 124 volts (if requested, on all three phases). COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-506 JPM REVISION: 2b	JPM TITLE: Locally Start the No. 1 Diesel Generator

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
9.C Check if the emergency bus is energized.	9.1 Candidate calls the Control Room to verify that the emergency bus is energized or energizes generator ammeter to monitor generator current. **EVALUATOR CUE:** The emergency bus is still de-energized and the ammeter indicates zero amps. 9.2.C Candidate proceeds to Emergency Switchgear room and operates the generator output breaker [ACB-1E-9] locally, (pulls the close lever inside the breaker cubicle). **EVALUATOR CUE:** A loud bang is heard and the spring charging motor runs for ~ 5 seconds, red closed light is LIT and red closed flag is visible on the breaker. **EVALUATOR NOTE:** Attached diagram shows location of close lever inside breaker cubicle. COMMENTS:	
10. Notify Control Room that EOP Attachment 2-E is complete.	10.1 Candidate calls the Control Room to notify Supervisor that EOP Attachment 2-E is complete. **EVALUATOR CUE:** Acknowledge report as Supervisor. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-017 JPM REVISION: 1a	JPM TITLE: Startup the Hydrogen Recombiners

K/A REFERENCE: 028 A4.01 4.0/4.0 TASK ID: 0461-003-01-043
2.1.23 3.9/4.0

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING
☐ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☐ Perform ☒ Simulate	☒ Plant Site ☐ Simulator ☐ Classroom	☐ Annual Requal Exam ☒ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☒ NRC ☐ Other:

EVALUATION RESULTS

Performer Name:	Performer SSN:

Time Critical: ☐ Yes ☒ No	Allotted Time: 25 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: 1PL-017 JPM REVISION: 1a	JPM TITLE: Startup the Hydrogen Recombiners

EVALUATOR DIRECTION SHEET

TASK STANDARD:	Startup the Hydrogen Recombiners in preparation to remove hydrogen from containment.
RECOMMENDED STARTING LOCATION:	In-Plant
DIRECTIONS:	You are to startup the Hydrogen Recombiners.
INITIAL CONDITIONS:	A reactor trip and safety injection occurred 3 hours ago due to a LOCA. 1OM-1.53.A.1.ES-1.3, "Transfer to Cold Leg Recirculation" has been implemented. The Wide Range Hydrogen Analyzers are already in service and indicate containment hydrogen concentration is the equivalent of 2.4% in dry air, requiring the Hydrogen Recombiners to be placed in service in accordance with 1OM-46.4.A, "Hydrogen Recombiner Startup". All AC distribution systems are operable.
INITIATING CUE:	Your Supervisor directs you to startup both Hydrogen Recombiners and report when your actions are complete.
REFERENCES:	1OM-46.4.A Issue 4, Rev. 3
TOOLS:	Keys (simulated)
HANDOUT:	1OM-46.4.A

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK: Startup the Hydrogen Recombiners.

INITIAL CONDITIONS: A reactor trip and safety injection occurred 3 hours ago due to a LOCA. 1OM-1.53.A.1.ES-1.3, "Transfer to Cold Leg Recirculation" has been implemented. The Wide Range Hydrogen Analyzers are already in service and indicate containment hydrogen concentration is the equivalent of 2.4% in dry air, requiring the Hydrogen Recombiners to be placed in service in accordance with 1OM-46.4.A, "Hydrogen Recombiner Startup". All AC distribution systems are operable.

INITIATING CUE: Your Supervisor directs you to startup both Hydrogen Recombiners and report when your actions are complete.

☐ 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: 1PL-017 JPM REVISION: 1a	JPM TITLE: Startup the Hydrogen Recombiners

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
	START TIME: _____	
	EVALUATOR CUE: Provide Candidate a copy of 1OM-46.4.A.	
1. Request Health Physics assistance.	1.1 Candidate contacts Health Physics to implement BVPS-HPM Chapter 5, REOP 2.1. **EVALUATOR CUE:** Health Physics reports BVPS-HPM Chapter 5, REOP 2.1 implemented and advises no apparel shielding is required for your task, but does recommend minimizing stay time. COMMENTS:	
2. Obtain keys.	2.1 Candidate obtains keys SR/O.C & SR/O.D. **EVALUATOR CUE:** Simulate handing keys to Candidate. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-017 JPM REVISION: 1a	JPM TITLE: Startup the Hydrogen Recombiners

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
3.**C** Unlock and open valves.	3.1 Candidate locates, simulates unlocking and opening each of the following valves (West Cable Vault): 3.1.1.**C** 1HY-101 3.1.2.**C** 1HY-103 3.1.3.**C** 1HY-102 3.1.4.**C** 1HY-104 **EVALUATOR CUE**: All valves are open. COMMENTS:	
4. Verify valves closed.	4.1 Candidate locates and verifies closed each of the following valves: **EVALUATOR NOTE:** Candidate may visually check valves or may call Control Room for verification. If Candidate calls Control Room, **CUE** that the valves are Shut. 4.1.1. TV-1CV-150A 4.1.2. TV-1CV-150B 4.1.3. TV-1CV-150C 4.1.4. TV-1CV-150D **EVALUATOR CUE:** All valves are shut. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-017 JPM REVISION: 1a	JPM TITLE: Startup the Hydrogen Recombiners

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
5.C Unlock and open valves.	5.1 Candidate locates, simulates unlocking and opening each of the following valves (Main Steam Valve Room): 5.1.1.C 1HY-110 5.1.2.C 1HY-196 5.1.3.C 1HY-111 5.1.4.C 1HY-197 **EVALUATOR CUE:** All valves are open. COMMENTS:	
6.C Align electrical power.	6.1 Candidate locates and energizes each of the following MCC linestarters: 6.1.1.C MCC1-E5 Cubicle BN (West Cable Vault) 6.1.2.C MCC1-E5 Cubicle AQ (West Cable Vault) 6.1.3.C MCC1-E6 Cubicle BU (East Cable Vault) 6.1.4.C MCC1-E6 Cubicle BR (East Cable Vault) **EVALUATOR NOTE:** All MCC's are energized. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-017 JPM REVISION: 1a	JPM TITLE: Startup the Hydrogen Recombiners

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
7. Verify valves closed.	7.1 Candidate locates and verifies closed each of the following valves (Hydrogen Control Panel 752'): 7.1.1 MOV-1HY-101A 7.1.2 MOV-1HY-101B 7.1.3 MOV-1HY-103A 7.1.4 MOV-1HY-103B **EVALUATOR CUE:** All valves are closed. COMMENTS:	
8. Align electrical power.	8.1 Candidate locates and de-energizes each of the following MCC linestarters: 8.1.1 MCC1-E5 Cubicle AQ (West Cable Vault) 8.1.2 MCC1-E5 Cubicle AU (West Cable Vault) 8.1.3 MCC1-E6 Cubicle BR (East Cable Vault) 8.1.4 MCC1-E6 Cubicle BT (East Cable Vault) **EVALUATOR NOTE:** All MCC's are de-energized. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-017 JPM REVISION: 1a	JPM TITLE: Startup the Hydrogen Recombiners

STEP ("C" Denotes CRITICAL STEP)	STANDARD (Indicate "S" FOR SAT or "U" FOR UNSAT)⇒	S/U
9.C Align valving.	9.1 Candidate locates and simulates opening each of the following valves (Hydrogen Control Panel 752'): 9.1.1.C MOV-1HY-102A 9.1.2.C MOV-1HY-102B **EVALUATOR NOTE:** Both valves are open. COMMENTS:	
10.C Start Hydrogen Recombiners.	10.1.C Candidate starts [HY-CCA-1A], Hydrogen Recombiner by locating, depressing, and holding the START pushbutton HS-1 for 10 seconds ('A' Recombiner Control Cabinet 752'). **EVALUATOR CUE:** Recombiner starts normally. 10.2.C Candidate starts [HY-CCA-1B], Hydrogen Recombiner by locating, depressing, and holding the START pushbutton HS-1 for 10 seconds ('B' Recombiner Control Cabinet 752'). **EVALUATOR CUE:** Recombiner starts normally. COMMENTS:	
11. Report Hydrogen Recombiner status.	11.1 Candidate reports that both Hydrogen Recombiners are operating normally. **EVALUATOR CUE:** Acknowledge report. COMMENTS:	
	STOP TIME: _____	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-074 JPM REVISION: 1b	JPM TITLE: Locally Make-Up to the Spent Fuel Pool

K/A REFERENCE: 033A2.03 3.1/3.5 TASK ID: 0201-002-01-043

JPM APPLICATION: ☒ REQUALIFICATION ☒ INITIAL EXAM ☐ TRAINING

☐ FAULTED JPM ☐ ADMINISTRATIVE JPM

EVALUATION METHOD:	LOCATION:	TYPE:	ADMINISTERED BY:
☐ Perform ☐ Simulate	☐ Plant Site ☐ Simulator ☐ Classroom	☐ Annual Requal Exam ☐ Initial Exam ☐ OJT/TPE ☐ Training ☐ Other:	☐ BVT ☐ NRC ☐ Other:

EVALUATION RESULTS		
Performer Name:		Performer SSN:
Time Critical: ☐ Yes ☒ 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: 1PL-074 JPM REVISION: 1b	JPM TITLE: Locally Make-Up to the Spent Fuel Pool

EVALUATOR DIRECTION SHEET

TASK STANDARD:	Make-up is established to the Spent Fuel Pool.
RECOMMENDED STARTING LOCATION:	Control Room
DIRECTIONS:	You are to simulate locally making up to the Spent Fuel Pool.
INITIAL CONDITIONS:	The plant is experiencing an extended loss of all emergency 4KV AC power. 1OM-53A.1.ECA-0.0, "Loss of All Emergency 4KV AC Power" is in progress.
INITIATING CUE:	Your Supervisor directs you to check the Spent Fuel Pool level and to coordinate make-up to the Spent Fuel Pool, if necessary, as directed in 1OM-53A.1.ECA-0.0, Step 34.
REFERENCES:	1OM-53A.1.ECA-0.0 Issue 1C, Rev. 0
TOOLS:	None
HANDOUT:	1OM-53A.1.ECA-0.0

OPERATIONS JOB PERFORMANCE MEASURE

CANDIDATE DIRECTION SHEET

*** THIS SHEET TO BE GIVEN TO CANDIDATE ***

☐ Read:

TASK:	Locally make-up to the Spent Fuel Pool.
INITIAL CONDITIONS:	The plant is experiencing an extended loss of all emergency 4KV AC power. 1OM-53A.1.ECA-0.0, "Loss of All Emergency 4KV AC Power" is in progress.
INITIATING CUE:	Your Supervisor directs you to check the Spent Fuel Pool level and to coordinate make-up to the Spent Fuel Pool, if necessary, as directed in 1OM-53A.1.ECA-0.0, Step 34.

☐ 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: 1PL-074 JPM REVISION: 1b	JPM TITLE: Locally Make-Up to the Spent Fuel Pool

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
	START TIME: _____	
	EVALUATOR CUE: Provide Candidate a copy of 1OM-53A.1.ECA-0.0. Inform Candidate that Annunciator A6-3, Spent Fuel Pool Level Low is LIT. No local actions have been initiated.	
1. Determine need for Spent Fuel Pool Make-up. **EVALUATOR NOTE:** Fuel pool pump suction pipe is located on north wall of fuel pool (same end as Fuel Pool Crane).	1.1 Candidate proceeds to the Spent Fuel Pool. **EVALUATOR CUE:** Inform Candidate that the water level is just below the intake end of the fuel pool pump suction piping. 1.2 Candidate determines that make-up is required (level < 750'). COMMENTS:	
2.C Prepare to add water to the Spent Fuel Pool.	2.1.C Candidate removes nozzles from hose racks to be used for make-up from: [1FP-HR-1], [1FP-HR-4], [1FP-HR-5]. **EVALUATOR CUE:** If asked, inform Candidate that the Supervisor desires that only one hose rack be utilized for make-up. **EVALUATOR NOTE:** Only ONE hose rack is required. Candidate may elect to use more than one hose rack. The hose racks are located on the fuel pool crane level. 2.2.C Candidate lowers hose into Spent Fuel Pool. 2.3. Candidate ties off hose to limit movement. COMMENTS:	

OPERATIONS JOB PERFORMANCE MEASURE

JPM NUMBER: 1PL-074 JPM REVISION: 1b	JPM TITLE: Locally Make-Up to the Spent Fuel Pool

STEP (**"C"** Denotes CRITICAL STEP)	STANDARD (Indicate **"S" FOR SAT** or **"U" FOR UNSAT)⇒**	S/U
3.**C** Add water to the Spent Fuel Pool.	3.1.**C** Candidate slowly opens the hose rack valves to refill the Spent Fuel Pool. **EVALUATOR CUE:** After a short wait, inform the Candidate that the Control Room has reported Annunciator A6-3, Spent Fuel Pool Level Low has cleared. COMMENTS:	
4.**C** Stop filling Spent Fuel Pool.	4.1.**C** Candidate closes hose rack isolation valves. 4.2.**C** Candidate removes hoses from the Spent Fuel Pool to prevent siphoning. COMMENTS:	
	STOP TIME: _____	