

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM

SYSTEM: RHR

TASK: TCAF loss of the only available RHR Pump in the shutdown cooling mode

TASK NUMBER: 1140300401

JPM NUMBER: FOXTROT NRC – SRO S1

ALTERNATE PATH: ☒

K/A NUMBER: 005 A2.03

IMPORTANCE FACTOR:	2.9	3.1
	RO	SRO

APPLICABILITY:

EO ☐ RO ☒ STA ☐ SRO ☒

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: S2.OP-AB.RHR-0001, Rev. 10

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 10 mins.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT
REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER
on designee

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:

1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ Minutes

JPM PERFORMED BY: _____ GRADE: ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: RHR

TASK: TCAF loss of the only available RHR Pump in the shutdown cooling mode

TASK NUMBER: 1140300401

INITIAL CONDITIONS:

1. Initialize to an IC with RHR in service, fuel in the core, and RCS temperature $>200^{\circ}\text{F}$
2. Ensure 21 or 22 SI Pump is available. If this can't be done in compliance with plant procedures then the Sim. Operator needs to release one pump shortly after being contacted.
3. "Tag" the non-running RHR Pump so that it cannot be started (REMOTES: RH30D, RH31D)
4. Snap IC to FOXTROT NRC CD (IC186; PASSWORD: catdog)
5. Trip the running RHR Pump shortly after the candidate assumes the watch (RH0026A).

NOTE: Simulator Operator should be prepared to release tags on 21 (REMOTES: SJ13D, SJ14D) or 22 SI Pump (REMOTES: SJ17D, SJ18D) quickly in order to avoid examination delays.

INITIATING CUE:

You are the Reactor Operator. The RCS is full and the unit is at 335 PSIG/ 278°F with 21 RHR Pump in service. 22 RHR Pump is currently unavailable. The breaker tripped during the last shift – electricians still have not determined the cause. Respond to all conditions and alarms.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: RHR

TASK: TCAF loss of the only available RHR Pump in the shutdown cooling mode

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with "Tear Off Sheet"	Candidate reviews conditions		
		START TIME:			
	1	RHR Pump trips	Responds to pump trip and enters S2.OP-AB.RHR-0001		
	2	Initiate Attachment 1, Continuous Action Summary	CUE: I will monitor the Continuous Action Summary – continue with the procedure.		
	3	Is RHR aligned for operation <101 ft. elevation (reduced inventory)?	Answers NO		
	4	Is the loss of RHR due to mechanical failure or loss of electrical power to the in-service RHR Pump?	Answers YES		
	5	Is a heat sink available for RHR? • CCW to RHR System • SW to CCW System	Answers YES		
	6	Is an RHR Loop available?	Answers NO		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: RHR

TASK: TCAF loss of the only available RHR Pump in the shutdown cooling mode

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	7	Initiate one of the alternate methods of decay heat removal	Chooses Att. 7, HL Injection, based on RCS temperature		
*	8	Makeup to the RCS as follows: A. Open SJ30, SUCTION FROM RWST B. If both SI Pumps are tagged, then send an operator to release the breaker for one SI Pump C. Place the 2RP4 LOCKOUT Switch for the appropriate SJ40, SAFETY INJECTION HEADER STOP VALVE, in VALVE OPERABLE D. Open the appropriate SJ40 E. Start the selected SI Pump F. Continue feeding at the maximum rate until either occurs: (1) RHR is restored; (2) Flow from any RCS opening is adequate to result in lowering CET's	CUE: As CRS I will operator to release the breaker NOTE: Simulator Operator should be prepared to release tags on 21SI Pump (REMOTES: SJ13D, SJ14D) or 22 SI Pump (REMOTES: SJ17D, SJ18D) quickly to avoid examination delays. <ul style="list-style-type: none"> • Verifies 2SJ30 OPEN • 21 OR 22 SI Pump running with the matching SJ40 OPEN * • Verifies flow on respective SI Pump Flow Meter 		
		TERMINATE THE JPM AFTER F. HAS BEEN READ			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. The RCS is full and the unit is at 335 PSIG/278°F with 21 RHR Pump in service. 22 RHR Pump is currently unavailable. The breaker tripped during the last shift – electricians still have not determined the cause.

INITIATING CUE:

You are the Reactor Operator. Respond to all conditions and alarms.

Rev. 0

NO. 1 & 2-22-0010(2)
OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: ECCS

TASK: Isolate the ECCS Accumulators IAW TRIP-6

TASK NUMBER: 1150070501

INITIAL CONDITIONS:

1. IC -194
2. Loss of Off-Site Power or trip RCP's
3. Perform EOP's to TRIP-6, Step 12 – SI ACCUM ISOLATION
4. Remove power from or override 23SJ54, Acc. Isolation Valve, closed (VL0017)
5. Snap IC to FOXTROT NRC CD (IC189-FACCUMJPM; PASSWORD: catdog)
6. Provide marked up copy of TRIP-6

INITIATING CUE:

A reactor trip occurred when power was lost to the RCP's. The operating crew has progressed through the EOP's and is now in 2-EOP-TRIP-6, NATURAL CIRCULATION RAPID COOLDOWN WITH RVLIS. Begin performing TRIP-6 at step 12.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: ECCS

TASK: Isolate the ECCS Accumulators IAW TRIP-6

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with "Tear Off Sheet"	Candidate reviews conditions and the marked up EOP		
		START TIME:			
	1	IS RCS PRESSURE <1000 PSIG	Verifies RCS pressure <1000PSIG and answers YES		
	3	REMOVE LOCKOUT FROM 21-24SJ54 (ACCUMULATOR OUTLET VALVES)	At RP-4 Panel, selects VALVE OPERABLE on each SJ54 LOCKOUT Switch		
*	4	CLOSE 21-24SJ54	Initiates CLOSE on each SJ54, noting that 21,22,24SJ54 begin to stroke closed		
	5	ARE 21-24SJ54 CLOSED	NO, 23SJ54 is OPEN. May re-check LOCKOUT Switch position		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: **ECCS**TASK: **Isolate the ECCS Accumulators IAW TRIP-6**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	6	VENT ANY AFFECTED ACCUMULATORS: <ul style="list-style-type: none"> • MAINTAIN RCS PRESSURE GREATER THAN ACCUMULATOR NITROGEN PRESSURE • OPEN 2NT35 (N2 HDR VALVE) • OPEN AFFECTED SJ93 (N2 SUPPLY VALVE) 	<ul style="list-style-type: none"> • Verifies RCS Pressure >23 Accum. Pressure • Opens 2NT35 • Opens 23SJ93 and observes pressure lowering 		
	7	WHEN ACCUMULATOR VENTING IS COMPLETE THEN CLOSE: <ul style="list-style-type: none"> • 2NT35 • 21-24SJ93 	CUE: Assume 23 Accumulator pressure is reading ZERO Closes 2NT35 and 23SJ93		
		TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. A reactor trip occurred when power was lost to the RCP's. The operating crew has progressed through the EOP's and is now in 2-EOP-TRIP-6, NATURAL CIRCULATION RAPID COOLDOWN WITH RVLIS.

INITIATING CUE:

Begin performing TRIP-6 at the indicated step.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM

SYSTEM: Pressurizer Pressure and Level

TASK: TCAF failed open Pressurizer Spray Valve (PS1)

TASK NUMBER: 114 024 04 01

JPM NUMBER: FOXTROT NRC – SRO S3

ALTERNATE PATH: ☒

K/A NUMBER: 010 A2.02

IMPORTANCE FACTOR:

3.9	3.9
RO	SRO

APPLICABILITY:

EO ☐ RO ☒ STA ☐ SRO ☒

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: S2.OP-AB.PZR-0001, Rev. 11

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 5 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT
REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER
OR designee

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:

1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ Minutes

JPM PERFORMED BY: _____ GRADE: ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Pressurizer Pressure and Level

TASK: TCAF failed open Pressurizer Spray Valve

TASK NUMBER: 114 024 04 01

INITIAL CONDITIONS:

1. Per setup disk IC-195 (100% power, controls in AUTO)
2. After candidate assumes the watch, 2PS1 fails to 75% open (VL0444, 2PS1 fails to 75% and B215 OVAO, 2PS1 valve demand to 75%)

INITIATING CUE:

You are the reactor operator. No controls or systems are intentionally misaligned. Respond to all conditions and/or alarms.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Pressurizer Pressure and Level

TASK: TCAF failed open Pressurizer Spray Valve

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with "Tear Off Sheet"	Reviews conditions		
		START TIME:			
	1	Operator responds to ↓PZR Pressure and/or alarm and/or change in 2PS1 position.	Enters S2.OP-AB.PZR-0001 directly or via an ARP. NOTE: It is acceptable for the operator to attempt closing PS1 prior to entering AB.PZR.		
	2	Is POPS in service?	Answers NO		
	3	Is the controlling PZR Pressure Control Channel (I or III) failed?	Evaluates and answers NO		
	4	Is the Master Pressure Controller failed?	Evaluates and answers NO		
	5	Is a spray valve failed?	Answers YES, 2PS1 is open		
	6	Place the Spray Valve(s) in MANUAL	Selects MANUAL on at least 2PS1		
	7	Operate the Spray Valves to control pressure consistent with Att. 1	Attempts to close 2PS1		
	8	Has pressure control been regained?	Answers NO		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Pressurizer Pressure and Level

TASK: TCAF failed open Pressurizer Spray Valve

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	8	Has pressure control been regained?	Answers NO		
	9	Is RCS pressure dropping rapidly?	Answers YES <i>NOTE:</i> It is acceptable to attempt a power reduction		
*	10	Trip the Reactor	Initiates a Reactor Trip using either MANUAL TRIP handle.		
	11	Is Reactor Trip confirmed?	Answers YES after confirming PRNIS Power dropping and negative IR SUR <i>NOTE:</i> It may be necessary for evaluator to tell candidate to complete the actions of AB.PZR.		
*	12	Stop 21 and 23 RCP	21 and 23 RCP stopped		
	13	Enter 2-EOP-TRIP-1 TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. The unit is at 100% power with all major controllers in AUTO.

INITIATING CUE:

You are the reactor operator. No controls or systems are intentionally misaligned. Respond to all conditions and/or alarms.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NO. 10-110.22-0010(2)

NAME: _____

DATE: _____

SYSTEM: CVCS

TASK: Take compensatory action for two or more control rods failing to insert during a reactor trip (TRIP-2)

TASK NUMBER: 1150030501

INITIAL CONDITIONS:

1. At power IC-196
2. Initiate Reactor Trip with MALF to prevent insertion of three control rods (RD0064; Rods 2, 17, 48)
3. Perform EOP's until CONTROL ROD INSERTION block of steps in TRIP-2
4. Mark up procedure to Step 6.
5. Insert OVERRIDE B128=0 (Rapid Borate Flow = 0.0)
6. Snap IC-196 to FOXTROT NRC CD; PASSWORD: catdog

INITIATING CUE:

The reactor has tripped from 100% power. The operating crew has performed the steps of TRIP-2 to the point indicated by the procedure. Begin performing TRIP-2 at the indicated step.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: CVCS

TASK: Take compensatory action for two or more control rods failing to insert during a reactor trip (TRIP-2)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with "Tear Off Sheet"	Candidate reviews conditions and the marked up EOP		
		START TIME:			
	1	HAVE TWO OR MORE CONTROL RODS FAILED TO INSERT	Notes three control rods not fully inserted		
	2	START AT LEAST ONE BORIC ACID PUMP IN MANUAL-FAST	Selects MANUAL and starts 21 and/or 22 BA Pump in FAST		
	3	OPEN 2CV175 (RAPID BORATE STOP VALVE)	Opens 2CV175		
	4	CLOSE 21 AND 22CV160 (BAT RECIRC VALVES)	Closes 21 and 22CV160		
	5	CONTROL CHARGING TO MAINTAIN >87 GPM	Verifies or raises charging flow to >87 gpm by adjusting 2CV55 or the Master Flow Controller		
	6	IS RAPID BORATION FLOW ESTABLISHED	Checks flow meter and answers NO		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: CVCS

TASK: Take compensatory action for two or more control rods failing to insert during a reactor trip (TRIP-2)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	7	PERFORM THE FOLLOWING ACTIONS: <ul style="list-style-type: none"> • CLOSE 2CV175 • STOP BOTH BA PUMPS • PLACE ONE BA PUMP IN AUTO • THROTTLE 21 AND 22CV160 TO 10% DEMAND 	<ul style="list-style-type: none"> • 2CV175 closed • 21 and 22 BA Pump stopped • 21 or 22 BA Pump in AUTO • 21 and 22CV160 demand set at no less than 10% 		
* #	8	OPEN 2SJ1 AND 2SJ2 (RWST TO CHARGING PUMP VALVES)	Opens 2SJ1 and/or 2SJ2		
* #	9	CLOSE 2CV40 AND 2CV41 (VCT DISCHARGE STOP VALVES)	Closes 2CV40 and/or 2CV41		
*	10	CONTROL CHARGING TO MAINTAIN GREATER THAN 87 GPM	Verifies or adjusts charging >87 GPM		
*	11	BORATE 120 MINUTES FOR EACH CONTROL ROD NOT FULLY INSERTED	Determines 360 minutes required boration time		
		TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. The reactor has tripped from 100% power. The operating crew has performed the steps of TRIP-2 to the point indicated by the procedure.

INITIATING CUE:

Begin performing TRIP-2 at the indicated step.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: Containment Cooling
TASK: Post-SI Systems Restoration (CBV)
TASK NUMBER: 0220010101
JPM NUMBER: FOXTROT NRC – SRO S5

ALTERNATE PATH: ☐

K/A NUMBER: 022 A4.01

IMPORTANCE FACTOR:

3.6	3.6
RO	SRO

APPLICABILITY:

EO ☐ RO ☒ STA ☐ SRO ☒

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: S2.OP-SO.SJ-0004
S2.OP-SO.CBV-0001

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 15 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT
REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER
OR designee

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:

1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ Minutes

JPM PERFORMED BY: _____ GRADE: ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Containment Cooling

TASK: Post-SI Systems Restoration (CBV)

TASK NUMBER: 0220010101

INITIAL CONDITIONS:

1. Simulator Setup: (a) Initiate a SI+Blackout; (b) Perform recovery actions through SI termination and restoring off-site power to the vital buses. Snap the setup and save to a disk. IC-197
2. A switchyard problem resulted in SI actuation and SEC Mode 3 loading. The electrical problem has been isolated and SI has been terminated. S2.OP-SO.SJ-0004, Post Safety Injection-Systems Restoration is being implemented.

INITIATING CUE:

Perform the Containment Ventilation Restoration section of S2.OP-SO.SJ-0004 and S2.OP-SO.CBV-0001: including starting the CFCU's's, Control Rod Drive Vent Fans, Reactor Shield Vent Fans, and the Reactor Nozzle Support Fans.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: **Containment Cooling**TASK: **Post-SI Systems Restoration (CBV)**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide the candidate with "Tear Off Sheet" and properly marked copies of S2.OP-SO.SJ-0004 and S2.OP-SO.CBV-0001	Candidate reviews procedures NOTE: Category 1 procedure use requirements apply for S2.OP-SO.SJ-0004 NOTE: Category 2 procedure use requirements apply for S2.OP-SO.CBV-0001		
		START TIME:			
	1	SO.SJ-4, Section 5.2: Press TRAIN A RESET CONT VENT ISOLATION bezel pushbutton	TRAIN A RESET CONT VENT ISOLATION bezel pushbutton illuminated		
	2	Press TRAIN B RESET CONT VENT ISOLATION bezel pushbutton	TRAIN B RESET CONT VENT ISOLATION bezel pushbutton illuminated		
	3	Restore Containment Ventilation to "Normal Operation" IAW S2.OP-SO.CBV-0001			

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Containment Cooling

TASK: Post-SI Systems Restoration (CBV)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	4	<u>For each CFCU to be operated:</u> <ul style="list-style-type: none"> Press FAN LOW SPEED STOP bezel Ensure (1) FAN STOP, (2) ROUGH FILTER DPR OPEN, (3) HEPA INLET DPR CLOSED, (4) HEPA OUTLET DPR CLOSED Press FAN HIGH SPEED START Ensure (1) ROUGH FILTER DPR OPEN, (2) HEPA INLET DPR CLOSED, (3) HEPA OUTLET DPR CLOSED Ensure SW flow >930 gpm 	<p>CUE: Since the CFCU's were operating in LOW, assume they are properly filled and vented and SW is available</p> <p>CUE: After candidate specifies that only four will be started or you ask how many will be started, run any four CFCU's in HIGH</p> <p>*Stops each CFCU in LOW prior to starting in HIGH. No more than 4 CFCU's operating in HIGH SPEED</p> <p>NOTE: If the candidate properly starts the first CFCU then the evaluator can elect to provide the following CUE: Assume the other CFCU's have been started. Move on to the next equipment in the procedure.</p>		
	5	Containment Iodine Removal Units	CUE: If asked, CRS orders are do not start Containment Iodine Removal Units		
*	6	Start desired CRDM Fans: <ul style="list-style-type: none"> Press START bezel Ensure SEQ COMP bezel illuminated AIR FLO LO bezel clear 	Starts at least 2 but no more than 3 CRDM's. If only 2 are operated then it must be in pairs of 21&24 or 22&23		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Containment Cooling

TASK: Post-SI Systems Restoration (CBV)

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	7	Start the desired Rx Shield Vent Fan: <ul style="list-style-type: none"> • Press START bezel • Ensure SEQ COMP bezel illuminated • AIR FLO LO bezel clear 	Starts at least one Rx Shield Vent Fan		
*	8	Start Rx Nozzle Support Fans: <ul style="list-style-type: none"> • Press START bezel • Ensure SEQ COMP bezel illuminated • AIR FLO LO bezel clear 	Starts two Rx Nozzle Support Fans in the proper combination: 21&22 or 21&24 or 23&22 or 23&24		
		TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. A switchyard problem resulted in SI actuation and SEC Mode 3 loading. The electrical problem has been isolated and SI has been terminated. S2.OP-SO.SJ-0004, Post Safety Injection-Systems Restoration is being implemented.

INITIATING CUE:

Perform the Containment Ventilation Restoration section of S2.OP-SO.SJ-0004 and S2.OP-SO.CBV-0001: including starting the CFCU's's, Control Rod Drive Vent Fans, Reactor Shield Vent Fans, and the Reactor Nozzle Support Fans.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: EDG
TASK: Start and load an EDG from the control room during a LOPA
TASK NUMBER: 1150140501
JPM NUMBER: FOXTROT NRC – SRO S6

ALTERNATE PATH: ☐

K/A NUMBER: EPE 055 EA1.02

IMPORTANCE FACTOR: 4.3 4.4

RO SRO

APPLICABILITY:

EO ☐ RO ☒ STA ☐ SRO ☒

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: 2-EOP-LOPA-1

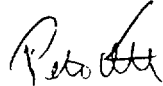
TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 8 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT
REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER
on design

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:

1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: Minutes

ACTUAL TIME CRITICAL COMPLETION: Minutes

JPM PERFORMED BY: _____ GRADE: ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: EDG

TASK: Start and load an EDG from the control room during a LOPA

TASK NUMBER: 1150140501

INITIAL CONDITIONS:

1. 100% power
2. Old Malfunction/Override/Remotes:
MEL134F-Loss of Off-Site Power
F4:EL134, Time Delay 1 minute
F4:EL161-2A EDG Trip
F4:EL163-2C EDG Trip
F6:D:DG:001, 002, 003-De-energize A, B, C SEC's
3. Perform the actions of TRIP-1 and LOPA-1 through initiation of S2.OP-AB.LOOP-1
4. Snap IC-198

INITIATING CUE:

The unit was at 100% power with 2B EDG in LOCKOUT for DUTR replacement. A loss of off-site power occurred and 2A and 2C EDG's failed to start. A NEO has de-energized all SEC's and maintenance reports that 2B EDG can be started. Beginning at Step 11, perform the actions of EOP-LOPA-1.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: EDG

TASK: Start and load an EDG from the control room during a LOPA

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with the "Tear Off Sheet"	Reviews conditions and procedure		
		START TIME:			
	1	Step 11 is a note to NOT energize SEC until directed			
	2	Depress bezel STOP pushbuttons for all loads in Table A. Note: Step 13 is a diesel loading Continuous Caution, not an action step.	Depresses STOP pushbutton for each of the following: <ul style="list-style-type: none"> • 21/22/23/24/25/26 SW Pumps • 21/22/23 CCW Pumps • 21/22 RHR Pumps • 21/22 SI Pumps • 21/22/23/24/25 CFCUs (HI & LO Speed) • 21/22 CS Pumps • 21/22 Charging Pumps, 23 is TAGGED OOS 		
*	3	Restore power to de-energized 4KV vital buses: <ul style="list-style-type: none"> • Start 2B EDG • Close 2B DG output breaker 	<ul style="list-style-type: none"> • 2B EDG running • 2B EDG breaker closed (2BDG Mimic Bus PB must be depressed before closing the breaker) 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: EDG

TASK: Start and load an EDG from the control room during a LOPA

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	4	When any 4KV Vital Bus is energized then: <ul style="list-style-type: none"> Start only one SW Pump on that bus Close the associated Turbine Area SW Stop Valve 	<ul style="list-style-type: none"> 23 or 24 SW Pump running 2SW26 closed indication 		
		TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. The unit was at 100% power with 2B EDG in LOCKOUT for DUTR replacement. A loss of off-site power occurred and 2A and 2C EDG's failed to start. A NEO has de-energized all SEC's and maintenance reports that 2B EDG can be started.

INITIATING CUE:

Beginning at Step 11, perform the actions of EOP-LOPA-1.

NO. 1 & 2B.22-0310(2)
OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: COMPONENT COOLING WATER (CCW)
TASK: Isolate a leaking CCW header
TASK NUMBER: 1140080401
JPM NUMBER: FOXTROT NRC – SRO S7

ALTERNATE PATH: ☐

K/A NUMBER: 008 A2.02

IMPORTANCE FACTOR: 3.2 3.5
RO SRO

APPLICABILITY:

EO ☐ RO ☒ STA ☐ SRO ☒

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: S2.OP-AB.CC-0001
P&ID 205331 SIMP

TOOLS AND EQUIPMENT: 205331 SIMP

VALIDATED JPM COMPLETION TIME: 15 mins.

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT
REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER
on designer

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:
1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ Minutes

JPM PERFORMED BY: _____ GRADE: ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: COMPONENT COOLING WATER (CCW)

TASK: Isolate a leaking CCW header

TASK NUMBER: 1140080401

INITIAL CONDITIONS:

1. Unit at 100% power
2. 21 Charging Pump I/S
3. 22 and 23 CCW Pump I/S
4. 21 CCW Hdr leak (REMOTE: CC12A)
5. Run until CC Surge Tk level is just above alarm point
6. SNAP IC-199 to FOXTROT NRC CD; PASSWORD: catdog

INITIATING CUE:

The unit is at 100% power with all major controls in AUTO. No controls or systems are intentionally misaligned. You are the reactor operator. Respond to all conditions and/or alarms.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: **COMPONENT COOLING WATER (CCW)**

TASK: **Isolate a leaking CCW header**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with "Tear Off Sheet"	Reviews conditions		
		START TIME:			
	1	CCW Surge Tank level alarm or operator notes lowering level	Enters Alarm Response Procedure (ARP) or directly into AB.CC-1. If ARP is entered first then the candidate will be directed to OPEN 2DR107, CCW Surge Tank M/U Valve, and then transition to AB.CC-1		
	2	AB.CC-1 Initiate Att. 1, Continuous Action Summary	CUE: I will monitor the Continuous Action Summary. Continue with the procedure.		
	3	Has Surge Tank M/U been initiated?	Can answer YES or NO depending on whether the ARP was entered first. The next several steps assume the answer was NO		
	4	Is CCW Surge Tank level rising?	Answers NO		
	5	Is CCW Surge Tank level dropping?	Answers YES		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: COMPONENT COOLING WATER (CCW)

TASK: Isolate a leaking CCW header

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	6	Initiate M/U to the CCW Surge Tank to maintain level >42%	Opens 2DR107, Surge Tank M/U Valve, before CCW Pumps begin to lose suction		
	7	Direct an NEO to ensure only one CC M/U Valve (2CC145, 2CC146) is OPEN	Pages NEO – Sim Operator or Evaluator acknowledges order		
	8	Send operators to locate leak	CUE: The Unit 2 CRS has dispatched the Primary NEO and another operator to look for CCW leaks. Report that WHUT level is slowly rising. Provide candidate with 205331 SIMP, marked to show leak location on 21 CCW Hdr		
*	9	When the leak is located, isolate the leak using Att. 3, Equipment Isolation Table Note: 21 CC Pump may start if still in AUTO. Candidate should acknowledge start and stop pump manually.	CLOSES: <ul style="list-style-type: none"> • 2CC17, PUMP SUCTION X-CONN • 2CC30, 21 CCHX OUT TO AUX HDR • 21CC3, PUMP OUTLET X-CONN Pages an NEO to CLOSE 2CC139, CC Pump Recirc		
		TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. The unit is at 100% power with all major controls in AUTO. No controls or systems are intentionally misaligned.

INITIATING CUE:

You are the reactor operator. Respond to all conditions and/or alarms.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Auxiliary Feedwater

TASK: TCAF Control Room Evacuation-Feed SG's using 21/22 AFWPp

TASK NUMBER: 1130060501

INITIAL CONDITIONS:

1. The control room has been evacuated.

INITIATING CUE:

The control room has been evacuated IAW S2.OP-AB.CR-0001. The CRS has assigned you to locally start 21 and 22 AFW Pumps and feed the SG's, IAW Attachment 4.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Auxiliary Feedwater

TASK: TCAF Control Room Evacuation-Feed SG's using 21/22 AFWPp

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with "Tear Off Sheet" and copy of S2.OP-AB.CR-0001, Attachment 4	Reviews conditions and procedure		
		START TIME:			
	1	Is 21 AFW Pp operating?	CUE: No. None of the AFW Pumps are operating		
*	2	Perform the following to start 21 AFW Pp: • Place 21 AFW Pp Remote-Local Switch to LOCAL • Place 21 AFW Pp Start-Stop Switch to START	At Panel 205-2, selects LOCAL and START CUE: If actions were correct: 21AFW Pp is Running		
	3	Is 22 AFW Pp operating?	CUE: No. 22 AFW Pp is not operating		
*	4	Perform the following to start 22 AFW Pp: • Place 22 AFW Pp Remote-Local Switch to LOCAL • Place 22 AFW Pp Start-Stop Switch to START	At Panel 206-2, selects LOCAL and START CUE: If actions were correct: 22AFW Pp is Running		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Auxiliary Feedwater

TASK: TCAF Control Room Evacuation-Feed SG's using 21/22 AFWPp

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5	Is 23 AFW Pp operating?	CUE: No. 23 AFW Pp will not be operated.		
*	6	Perform the following to take manual control of 21AF21, Aux Feed-S/G Level Control Valve: <ul style="list-style-type: none"> Manually adjust 21AF21 on the hand jack to the valve's present position. Close manual isolation valve 21AF21 A/S to pressure regulator in No. 2 Unit Redundant Air Supply Panel 700-2M. Open drain cock on the pressure regulator. Manually adjust 21AF21 as required to maintain SG level at 15-33% NR level indicated on LI-517A. 	<ul style="list-style-type: none"> Locates AF21 and discusses operation of hand jack Locates Panel 700-2M and discusses operation of correct valve Discusses operation of drain cock CUE: Open 21AF21 approx. 25% <ul style="list-style-type: none"> Discusses how to open 21AF21 NOTE: If operation of 21AF21 was correct and confident, the Evaluator may terminate the JPM after this or any of the remaining AF21's has been operated.		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Auxiliary Feedwater

TASK: TCAF Control Room Evacuation-Feed SG's using 21/22 AFWPp

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	7	Perform the following to take manual control of 22AF21, Aux Feed-S/G Level Control Valve: <ul style="list-style-type: none"> Manually adjust 22AF21 on the hand jack to the valve's present position. Close manual isolation valve 22AF21 A/S to pressure regulator in No. 2 Unit Redundant Air Supply Panel 700-2Y. Open drain cock on the pressure regulator. Manually adjust 22AF21 as required to maintain SG level at 15-33% NR level indicated on LI-527A. 	<ul style="list-style-type: none"> Locates 22AF21 and discusses operation of hand jack Locates Panel 700-2Y and discusses operation of correct valve Discusses operation of drain cock <p>CUE: Open 22AF21 approx. 25%</p> <ul style="list-style-type: none"> Discusses how to open 22AF21 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Auxiliary Feedwater

TASK: TCAF Control Room Evacuation-Feed SG's using 21/22 AFWPp

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	8	Perform the following to take manual control of 23AF21, Aux Feed-S/G Level Control Valve: <ul style="list-style-type: none"> Manually adjust 23AF21 on the hand jack to the valve's present position. Close manual isolation valve 23AF21 A/S to pressure regulator in No. 2 Unit Redundant Air Supply Panel 700-2F. Open drain cock on the pressure regulator. Manually adjust 23AF21 as required to maintain SG level at 15-33% NR level indicated on LI-537A. 	<ul style="list-style-type: none"> Locates AF21 and discusses operation of hand jack Locates Panel 700-2F and discusses operation of correct valve Discusses operation of drain cock <p>CUE: Open 23AF21 approx. 25%</p> <ul style="list-style-type: none"> Discusses how to open 23AF21 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Auxiliary Feedwater

TASK: TCAF Control Room Evacuation-Feed SG's using 21/22 AFWPp

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	9	Perform the following to take manual control of 24AF21, Aux Feed-S/G Level Control Valve: <ul style="list-style-type: none"> Manually adjust 24AF21 on the hand jack to the valve's present position. Close manual isolation valve 24AF21 A/S to pressure regulator in No. 2 Unit redundant Air Supply Panel 700-2E. Open drain cock on the pressure regulator. Manually adjust 24AF21 as required to maintain SG level at 15-33% NR level indicated on LI-547A. 	<ul style="list-style-type: none"> Locates AF21 and discusses operation of hand jack Locates Panel 700-2E and discusses operation of correct valve Discusses operation of drain cock <p>CUE: Open 24AF21 approx. 25%</p> <ul style="list-style-type: none"> Discusses how to open 24AF21 		
		TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. The control room has been evacuated.

INITIATING CUE:

The control room has been evacuated IAW S2.OP-AB.CR-0001. The CRS has assigned you to locally start 21 and 22 AFW Pumps and feed the SG's, IAW Attachment 4.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM

SYSTEM: Emergency Diesel Generator - 125 VDC

TASK: Transfer an Emergency Diesel Generator 125VDC Control Power

TASK NUMBER: 1130030501

JPM NUMBER: FOXTROT NRC – RO/SRO In-Plant 2

ALTERNATE PATH: ☐

K/A NUMBER: 2.1.30

IMPORTANCE FACTOR:	
3.9	3.4
RO	SRO

APPLICABILITY:

EO ☐ RO ☒ STA ☐ SRO ☒

EVALUATION SETTING/METHOD: In-Plant/Simulate


REFERENCES: S2.OP-SO.DG-0001, Rev. 24

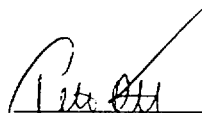
TOOLS AND EQUIPMENT: None


VALIDATED JPM COMPLETION TIME: 12 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT
REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER
on designee *CD*

CAUTION: No plant equipment shall be operated during the performance of a JPM without the following:

1. Permission from the OS or Unit CRS;
2. Direct oversight by a qualified individual (determined by the individual granting permission based on plant conditions).
3. Verification of the "as left" condition by a qualified individual.

ACTUAL JPM COMPLETION TIME: _____ Minutes

ACTUAL TIME CRITICAL COMPLETION: _____ Minutes

JPM PERFORMED BY: _____ GRADE: ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

NAME: _____

DATE: _____

SYSTEM: Emergency Diesel Generator - 125 VDC

TASK: Transfer an Emergency Diesel Generator 125VDC Control Power

TASK NUMBER: 1130030501

INITIAL CONDITIONS:

1. Due to a fire in the relay room, the normal 125VDC supply for 2A EDG has been lost

INITIATING CUE:

The Unit 2 CRS has directed you to transfer 125VDC for 2A EDG to the alternate source IAW S2.OP-SO.DG-0001.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Emergency Diesel Generator - 125 VDC

TASK: Transfer an Emergency Diesel Generator 125VDC Control Power

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with "Tear Off Sheet" and marked up copy of the Prerequisites, Precautions and Limitations and the correct section of S2.OP-SO.DG-0001 <i>NOTE: This JPM can be applied to any EDG by using the correct procedure and noting the different breaker designators.</i>	Reviews conditions and procedure		
		START TIME:			
	1	ENSURE 2CDC1AX22, 2CDCDG DIESEL GEN STAND-BY 125VDC DC DISTRIBUTION PANEL (STANDBY), is ON (2C 125VDC Bus, Elev. 84' Swgr. Rm.)	<i>CUE:</i> The diesel is NOT running <i>CUE:</i> If the JPM is started from inside the RCA then inform candidate that 2CDC1AX22, 2CDCDG DIESEL GEN STAND-BY 125VDC DC DISTRIBUTION PANEL (STANDBY), is ON . If desired, locate the breaker after exiting the RCA. Verifies 2CDC1AX22 ON		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Emergency Diesel Generator - 125 VDC

TASK: Transfer an Emergency Diesel Generator 125VDC Control Power

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	2	<p>ENSURE the following breakers are OFF (2CDC2DA, NOS. 2A, 2B & 2C DIESEL GENERATORS STAND-BY 125 VDC Distribution Cabinet, 2C DG Control Rm.):</p> <ul style="list-style-type: none"> • 2CDC2DA2, 2A D/G TRIP & BREAKER FAILURE PROTECTION • 2CDC2DA3, 2A D/G CONTROL & EXCITATION • 2CDC2DA4, 2A D/G CONTROL & ALARM 	<p>Verifies correct breakers OFF/OPEN:</p> <ul style="list-style-type: none"> • 2CDC2DA2, 2A D/G TRIP & BREAKER FAILURE PROTECTION • 2CDC2DA3, 2A D/G CONTROL & EXCITATION • 2CDC2DA4, 2A D/G CONTROL & ALARM 		
*	3	<p>PLACE the following breakers OFF (2ADC1DA, 2A Diesel Generator Alternate DC Starter Terminal Box, 2A Diesel Generator Control Room):</p> <ul style="list-style-type: none"> • 2ADC1DA1, NORMAL DC TO 2A D/G ENGINE CONTROLS • 2ADC1DA2, NORMAL DC TO 2A D/G ENGINE CONTROLS • 2ADC1DA5, NORMAL DC TO 2A D/G EXCITER 	<p>Simulates repositioning correct breakers to OFF/OPEN:</p> <ul style="list-style-type: none"> • 2ADC1DA1, NORMAL DC TO 2A D/G ENGINE CONTROLS • 2ADC1DA2, NORMAL DC TO 2A D/G ENGINE CONTROL • S2ADC1DA5, NORMAL DC TO 2A D/G EXCITER 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Emergency Diesel Generator - 125 VDC

TASK: Transfer an Emergency Diesel Generator 125VDC Control Power

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	4	PLACE the following breakers ON (2ADC1DA, 2A Diesel Generator Alternate DC Starter Terminal Box, 2A Diesel Generator Control Room): <ul style="list-style-type: none"> • 2ADC1DA3, STANDBY DC TO 2A D/G ENGINE CONTROLS FROM 2CDCDG-2 • 2ADC1DA4, STANDBY DC TO 2A D/G ENGINE CONTROLS FROM 2CDCDG-4 • 2ADC1DA6, STANDBY DC TO 2A D/G EXCITER FROM 2CDCDG-3 	Simulates repositioning correct breakers to ON/CLOSED: <ul style="list-style-type: none"> • 2ADC1DA3, STANDBY DC TO 2A D/G ENGINE CONTROLS FROM 2CDCDG-2 • 2ADC1DA4, STANDBY DC TO 2A D/G ENGINE CONTROLS FROM 2CDCDG-4 • 2ADC1DA6, STANDBY DC TO 2A D/G EXCITER FROM 2CDCDG-3 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Emergency Diesel Generator - 125 VDC

TASK: Transfer an Emergency Diesel Generator 125VDC Control Power

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5	PLACE the following breakers ON (2CDC2DA, NOS. 2A, 2B & 2C DG STAND-BY, 125 VDC Distribution Cabinet, 2C Diesel Generator Control Room): <ul style="list-style-type: none"> • 2CDC2DA2, 2A D/G TRIP & BREAKER FAILURE PROTECTION • 2CDC2DA3, 2A D/G CONTROL & EXCITATION • 2CDC2DA4, 2A D/G CONTROL & ALARM • 2CDC2DAX1, 2CDCDG 125VDC DISTRIBUTION PANEL MAIN BREAKER AND 2CDC2DA1, STANDBY POWER ON RELAY (mechanically interlocked) (2CDC2DA 125VDC Distribution Cabinet, 2C Diesel Generator Control Room) 	Simulates repositioning correct breakers.to ON/CLOSED: <ul style="list-style-type: none"> • 2CDC2DA2, 2A D/G TRIP & BREAKER FAILURE PROTECTION • 2CDC2DA3, 2A D/G CONTROL & EXCITATION • 2CDC2DA4, 2A D/G CONTROL & ALARM • 2CDC2DAX1, 2CDCDG 125VDC DISTRIBUTION PANEL MAIN BREAKER AND 2CDC2DA1, STANDBY POWER ON RELAY (mechanically interlocked) (2CDC2DA 125VDC Distribution Cabinet, 2C Diesel Generator Control Room). 		
	6	ENSURE local annunciator D-7, 125 VDC CONTROL FAILURE, is clear.	Locates alarm in 2A Diesel Generator Control Room and verifies it is clear		
		TERMINATE JPM			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. Due to a fire in the relay room, the normal 125VDC supply for 2A EDG has been lost.

INITIATING CUE:

The Unit 2 CRS has directed you to transfer 125VDC for 2A EDG to the alternate source IAW S2.OP-SO.DG-0001.

NAME: _____

DATE: _____

SYSTEM: Electrical (115 VAC)

TASK: Xfer ASDS Inverter to DC

TASK NUMBER: 1140140401

INITIAL CONDITIONS:

1. The control room has been evacuated due to a fire in the Relay Room. The actions of S1.OP-AB.CR-0002 are in progress.
2. 1C Vital Bus must be isolated and de-energized. As a result, the ASDS Inverter must be shifted to the DC Source.

INITIATING CUE:

Shift the ASDS Inverter to the DC Source IAW S1.OP-SO.115-0002.

Successful Completion Criteria:

1. All critical steps completed.
2. All sequential steps completed in order.
3. All time-critical steps completed within allotted time.
4. JPM completed within validated time. Completion time may exceed the validated time if satisfactory progress is being made.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Electrical (115 VAC)

TASK: Xfer ASDS Inverter to DC

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide candidate with the "Tear Off Sheet" and marked up copies of S1.OP-SO.115-0002	Reviews conditions and procedures		
		START TIME:			
	1	<u>S1.OP-SO.115-0002</u> Ensure the following: <ul style="list-style-type: none"> 1ASDS-IPS-1, No. 1ASDS Inverter Power Supply 125VDC Breaker is ON. 	<ul style="list-style-type: none"> Verifies the 1ASDS-IPS-1, No. 1ASDS Inverter Power Supply 125VDC Breaker is ON 		
	2	<ul style="list-style-type: none"> 1ASDS Inverter ON BATTERY red light is extinguished. 	CUE: 1ASDS Inverter ON BATTERY red light is extinguished		
	3	<ul style="list-style-type: none"> DC Voltage (142-144VDC on 1VM349) Frequency (59.6-60.4 HZ on 1FM351) Voltage (118-122VAC on 1VM347) DC Current (>0 amps on 1AM350) 	CUE or AS READ: <ul style="list-style-type: none"> DC Voltage 143VDC Frequency 60 HZ Voltage 120VAC DC Current (>0 amps) 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Electrical (115 VAC)

TASK: Xfer ASDS Inverter to DC

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	4	Notify RO/PO that Control Room Auxiliary Annunciator point 564, ALTERNATE SHUTDOWN SYS, LOSS OF INVERTER will alarm.	CUE: RO acknowledges.		
*	5	Open 1ASDS-IPS-2, No. 1ASDS INVERTER POWER SUPPLY 208VAC INPUT BKR (NORMAL), and ENSURE the following: <ul style="list-style-type: none"> Frequency (59.6-60.4 HZ on 1FM351) Voltage (118-122VAC on 1VM347) ASDS Inverter ON BATTERY light is illuminated and flashing 	*Opens 1ASDS-IPS-2, No. 1ASDS IVERTER POWER SUPPLY 208VAC INPUT BKR (NORMAL) CUE or AS READ: <ul style="list-style-type: none"> Frequency is 60 HZ Voltage is 120VAC ASDS Inverter ON BATTERY light is illuminated and flashing 		
*	6	If 1C VITAL BUS is to be de-energized, THEN: <ul style="list-style-type: none"> Place 1 ASDS-INV-2, No. 1ASDS INVERTER POWER SUPPLY 208VAC INPUT BKR (ALTERNATE) in OFF Ensure ALT SOURCE FAIL red light is illuminated and flashing Ensure SYNC DISCONN red light is illuminated and flashing 	*Places 1ASDS-INV-2, No. 1ASDS IVERTER POWER SUPPLY 208VAC INPUT BKR (ALTERNATE) in OFF CUE: <ul style="list-style-type: none"> ALT SOURCE FAIL red light is illuminated and flashing SYNC DISCONN red light is illuminated and flashing 		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: Electrical (115 VAC)

TASK: Xfer ASDS Inverter to DC

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	7	Ensure the following: <ul style="list-style-type: none"> • Current (>0 amps on 1AM348) • Control Room Auxiliary Annunciator point 564 ALTERNATE SHUTDOWN SYS, LOSS OF INVERTER is in alarm • Control Room Auxiliary Annunciator point 566, ALTERNATE SHUTDOWN SYS, LOSS OF 115VAC, is clear 	CUE: <ul style="list-style-type: none"> • Current >0 amps • Control Room Auxiliary Annunciator point 564 ALTERNATE SHUTDOWN SYS LOSS OF INVERTER is in alarm • Control Room Auxiliary Annunciator point 566, ALTERNATE SHUTDOWN SYS, LOSS OF 115VAC, is clear 		
	8	UPDATE TRIS to reflect off-normal position of breakers manipulated in this section. Note: Candidate may identify that SAP is now used for Configuration Control	CUE: TRIS or SAP will be updated when control room access is restored		
		<u>TERMINATE JPM</u>			
		STOP TIME:			

Terminating Cue: Repeat back message from the operator on the status of the JPM, and then state "This JPM is complete"

INITIAL CONDITIONS:

1. The control room has been evacuated due to a fire in the Relay Room. The actions of S1.OP-AB.CR-0002 are in progress.
2. 1C Vital Bus must be isolated and de-energized. As a result, the ASDS Inverter must be shifted to the DC Source.

INITIATING CUE:

The CRS has directed you to shift the ASDS Inverter to the DC Source IAW S1.OP-SO.115-0002