

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: Steam Dump
TASK: Perform an RCS cooldown to the target temperature IAW SGTR-1
TASK NUMBER: 1150190501
JPM NUMBER: FOXTROT NRC - RO S1

ALTERNATE PATH: K/A NUMBER: 038 EA1.36
IMPORTANCE FACTOR: RO 4.3 SRO 4.5
APPLICABILITY: EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: 2-EOP-SGTR-1

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 15 mins

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:

Patrick J. Dancy 5-6-01 BARGAINING UNIT REPRESENTATIVE
R. [Signature] TRAINING SUPERVISOR
[Signature] 5-8-01 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

NO. IQ-WB.22-0510(4)

NAME: _____

DATE: _____

SYSTEM: Steam Dump

TASK: Perform an RCS cooldown to the target temperature IAW SGTR-1

TASK NUMBER: 1150190501

INITIAL CONDITIONS:

1. At power IC-186
2. SGTR on 21 SG
3. Perform SGTR-1 to Step 15, DETERMINE REQUIRED RCS TEMP USING TABLE D
4. 21 SG isolated
5. 22-24MS167 OPEN and Condenser/Steam Dump available
6. Provide SGTR-1, marked up to step 15
7. CET's displayed on Plant Computer

INITIATING CUE:

A SGTR has occurred on 21 SG. The operating crew has properly implemented the EOP's and is at the RCS COOLDOWN block in SGTR-1. Beginning with that block, perform the steps of the EOP.

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: Steam Dump

TASK: Perform an RCS cooldown to the target temperature IAW SGTR-1

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	1	Provide candidate with "Tear Off Sheet"	Candidate reviews conditions and SGTR-1, as necessary		
		START TIME:			
	2	DETERMINE REQUIRED RCS TEMPERATURE USING TABLE D	Determines 21 SG Pressure >1000psig and selects 503°F as target		
	3	IS INTACT SG AVAILABLE FOR COOLDOWN	Answers YES per initial conditions or verifies 22-24MS167 position		
	4	ARE CONDENSER STEAM DUMPS AVAILABLE	Verifies controls illuminated and adequate condenser vacuum		
*	5	PLACE STEAM DUMPS IN MANUAL	MANUAL selected on PRESSURE CONTROL Bezel		
	6	ADJUST STEAM PRESSURE VALVE DEMAND TO 0%	Verifies Steam Pressure Valve demand at 0%		
*	7	PLACE STEAM DUMPS IN MS PRESS CONTROL	MS PRESS CONTROL selected on CONTROL MODE Bezel		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: Steam Dump

TASK: Perform an RCS cooldown to the target temperature IAW SGTR-1

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	8	Reads CAUTION STATEMENT: WHEN RCS TAVG LOW-LOW IS REACHED THEN DEPRESS BYPASS TAVG PUSHBUTTONS			
*	9	ADJUST STEAM PRESSURE VALVE DEMAND TO 25%	<ul style="list-style-type: none"> Maintains steam flow <High Steam Flow SI setpoint (Main Steamline Isolation) Depresses Train A and B BYPASS TAVG pushbuttons to continue the cooldown after steam dump valves close on TAVG LOW-LOW interlock 		
	10	Reads CAUTION STATEMENT: WAIT UNTIL HOTTEST CET IS LESS THAN REQUIRED RCS COOLDOWN TEMPERATURE	CUE: Temperature is at 503°F.		
	11	STOP COOLDOWN	Terminates the cooldown with RCS (CET) Temp ≤503°F		
*	12	DUMP STEAM TO MAINTAIN RCS TEMP LESS THAN REQUIRED	Maintains temperature less than ≤503°F by manually controlling MS PRESS Valve Demand or selects AUTO		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: **Steam Dump**

TASK: **Perform an RCS cooldown to the target temperature IAW SGTR-1**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Terminate JPM when Evaluator is satisfied temperature is being controlled <target value			
		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:

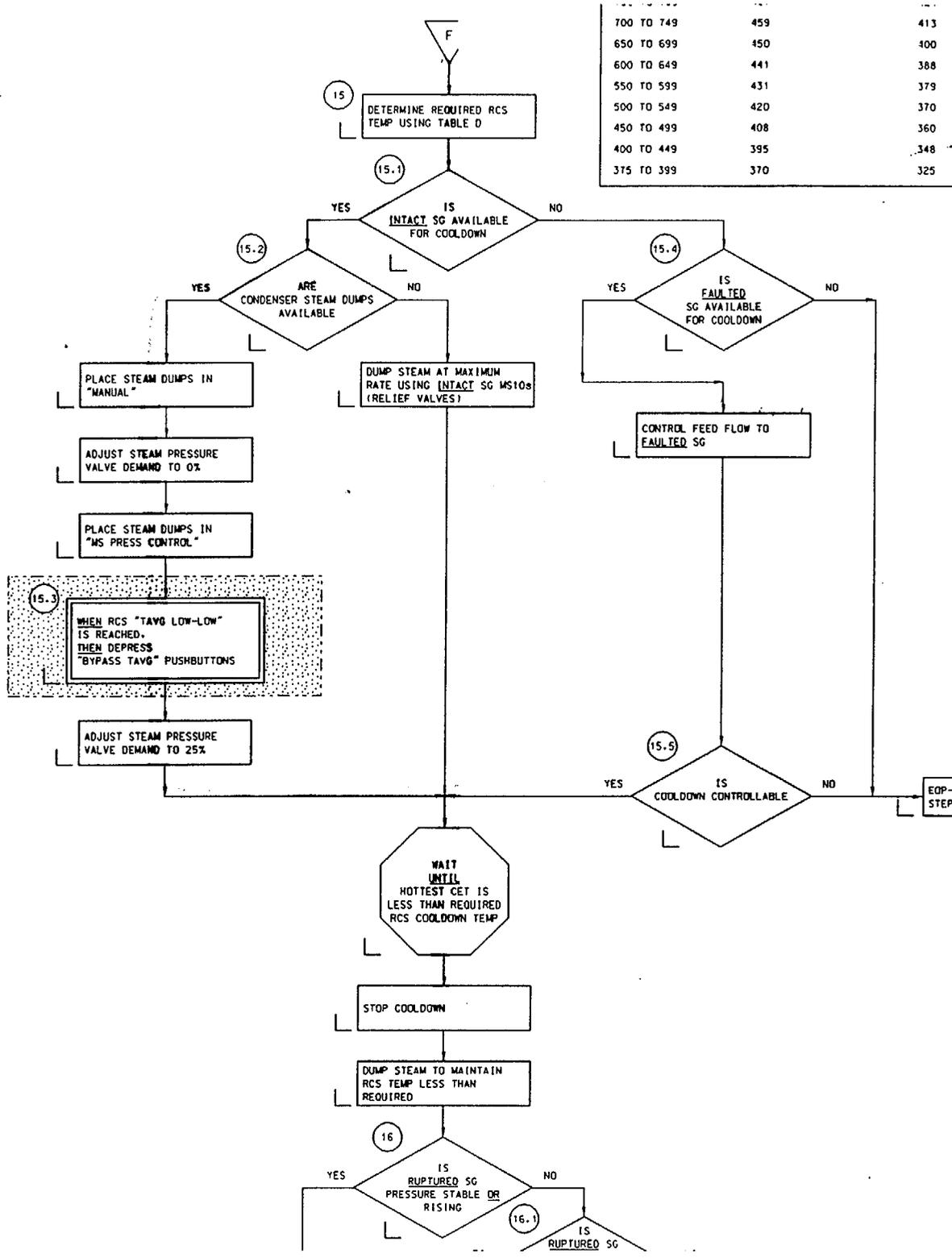
1. A SGTR has occurred on 21 SG
2. 21 SG is isolated.
3. 22-24MS167 are OPEN.
4. All RCP's are running.

INITIATING CUE:

A SGTR has occurred on 21 SG. The operating crew has properly implemented the EOP's and is at the RCS COOLDOWN block in SGTR-1. Beginning with that block, perform the steps of the EOP.

ALL ACTIVE ON-THE-SPOT CHANGES MUST BE ATTACHED FOR FIELD USE
20010507

700 TO 749	459	413
650 TO 699	450	400
600 TO 649	441	388
550 TO 599	431	379
500 TO 549	420	370
450 TO 499	408	360
400 TO 449	395	348
375 TO 399	370	325



OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: ECCS
TASK: Align for CL Recirculation with 22SJ44 AUTO ARMED failed IAW
2-EOP-LOCA-3
TASK NUMBER: 1150100501
JPM NUMBER: FOXTROT NRC - RO S2

ALTERNATE PATH: K/A NUMBER: EPE 011 EA1.11
IMPORTANCE FACTOR: 4.2 4.2
APPLICABILITY: RO SRO
EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: 2-EOP-LOCA-3

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 12 mins

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:

Patrick R. ... 5-6-01 *Pat ...* *D. ...*
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

NO. 12-110.22-0310(2)

NAME: _____

DATE: _____

SYSTEM: ECCS

TASK: Align for CL Recirculation with 22SJ44 AUTO ARMED failed IAW 2-
EOP-LOCA-3

TASK NUMBER: 1150100501

INITIAL CONDITIONS:

1. Reset to IC-187
2. Enter RP:223B (Failure of 22SJ44 AUTO ARM)
3. Enter RC0001A
4. Perform EOP's until transition to LOCA-3
5. Snap IC

INITIATING CUE:

A DBA LOCA has occurred. All vital buses are energized. The crew has just transitioned to LOCA-3. Perform the steps of LOCA-3.

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: Align for CL Recirculation with 22SJ44 AUTO ARMED failed IAW 2-EOP-LOCA-3

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Provide "Tear Off Sheet" to candidate			
		START TIME:			
	1	Do not implement any FRP's until directed by this EOP			
	2	Is Containment Recirc Sump level >62%	Checks level and answers YES		
	3	Depress SUMP AUTO ARMED pushbuttons on 21 and 22SJ44 bezels	Depresses correct pushbuttons		
	4	Remove lockouts from the following: <ul style="list-style-type: none"> • 2SJ67 SI Pp Miniflow • 2SJ68 SI Pp Miniflow • 2SJ69 Common Suction 	Selects VALVE OPERABLE at RP-4: <ul style="list-style-type: none"> • SJ67 SI Pp Miniflow • SJ68 SI Pp Miniflow • SJ69 Common Suction 		
	5	Are 21 and 22 SJ44 open?	Answers NO, 22SJ44 is closed NOTE: Alternate Path		
	6	Reset SI	Verifies SI RESET, both trains		
	7	Reset EACH SEC	Verifies all SECs RESET		
	8	Is 21SJ44 Open	YES		
*	9	Stop 22 RHR Pump	22 RHR Pump Stopped		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: ECCS

TASK: Align for CL Recirculation with 22SJ44 AUTO ARMED failed IAW 2-EOP-LOCA-3

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	10	Close 2SJ69	2SJ69 closed		
	11	Start 21 RHR Pump	Verifies 21 RHR Pump running		
	12	Initiate CLOSE on 22RH4 and continue	22RH4 CLOSE initiated		
	13	Initiate OPEN on 22SJ44 and continue	22SJ44 OPEN initiated		
*	14	When 22SJ44 opens then start 22 RHR pump	22 RHR pump running with 22SJ44 OPEN 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:

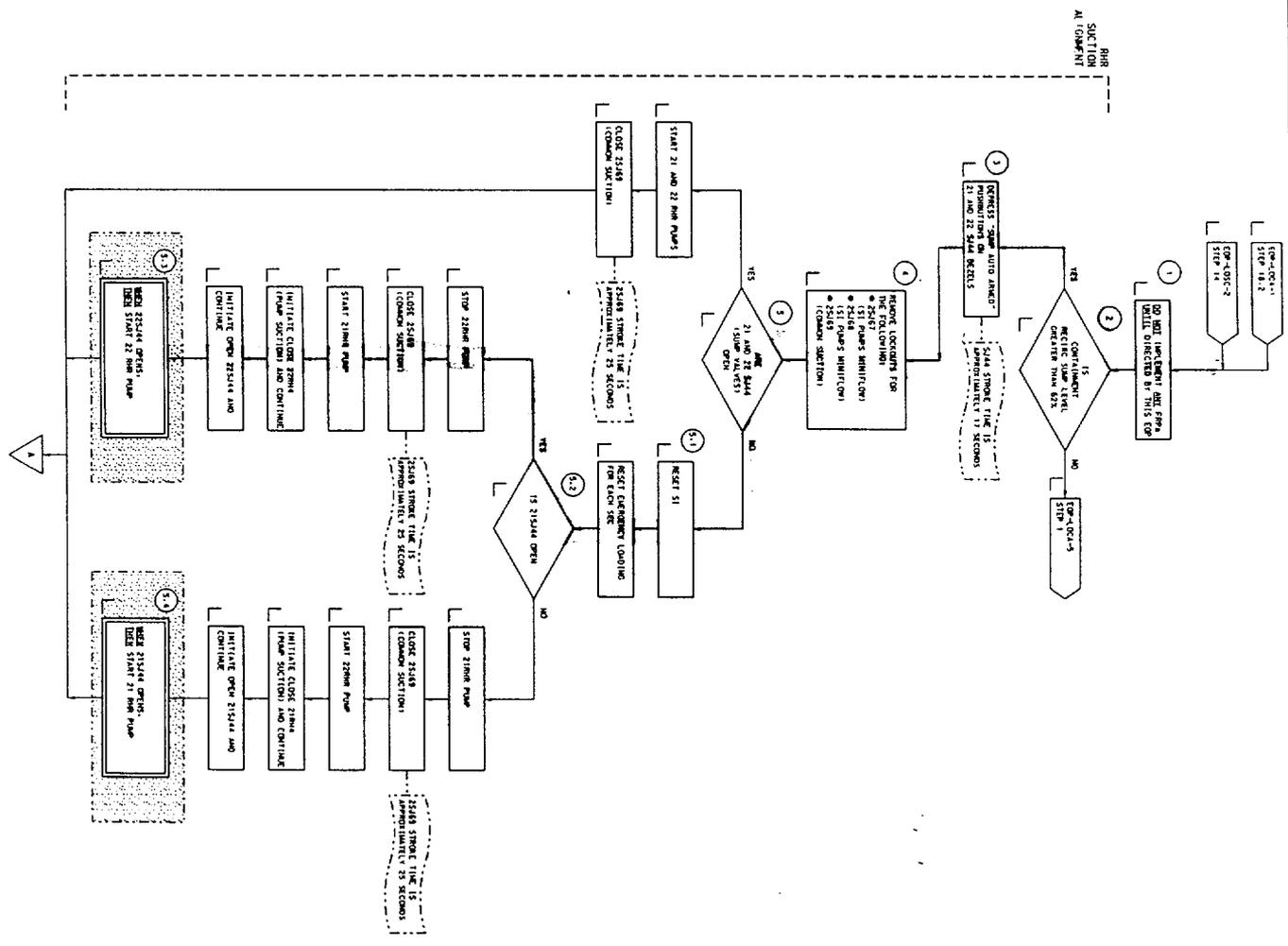
1. A DBA LOCA has occurred. All vital buses are energized. The crew has just transitioned to LOCA-3.

INITIATING CUE:

Perform the steps of LOCA-3.

ALL ACTIVE ON-THE-SPOT CHANGES MUST BE ATTACHED FOR FIELD USE
20010507

1	FORM-001-1
2	FORM-001-2
3	FORM-001-3
4	FORM-001-4
5	FORM-001-5
6	FORM-001-6
7	FORM-001-7
8	FORM-001-8
9	FORM-001-9
10	FORM-001-10
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100	FORM-001-100



OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: PRESSURIZER
TASK: Lower RCS Pressure during a natural circulation cooldown IAW
EOP-TRIP-4
TASK NUMBER: 1150050501
JPM NUMBER: FOXTROT NRC - RO S3

ALTERNATE PATH: K/A NUMBER: E09 EA1.1
IMPORTANCE FACTOR:

3.5	3.5
RO	SRO

APPLICABILITY: EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: 2-EOP-TRIP-4

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 12 mins

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:

Robert F. [Signature] 5-6-01
BARGAINING UNIT REPRESENTATIVE

[Signature]
TRAINING SUPERVISOR

[Signature]
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

TASK: Lower RCS Pressure during a natural circulation cooldown IAW
EOP-TRIP-4

TASK NUMBER: 1150050501

INITIAL CONDITIONS:

1. Snapped IC-188 with Loss of Off-Site Power or no power to Group Busses (RCP's)
2. Letdown isolated
3. EOP-TRIP-4 completed up to Step 11, BLOCK HI STEAM LINE FLOW SI
4. *Fail CV18 closed when it is shifted to AUTO*

INITIATING CUE:

Off-site power has been lost. All vital busses are being powered from their respective EDG. The crew is conducting a natural circulation cooldown IAW TRIP-4. Beginning at the BLOCK HI STEAM LINE FLOW SI step (step 11), perform the steps of TRIP-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: PRESSURIZER

TASK: Lower RCS Pressure during a natural circulation cooldown IAW EOP-TRIP-4

# *	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 the conditions and marked up EOP		
		START TIME:			
	1	BLOCK HI STEAM LINE FLOW SI	Blocks HI STEAM LINE FLOW SI on both trains		
	2	VERIFY OPEN CV2 AND CV277 (LETDOWN ISOL VALVES) AND PLACE IN AUTO	Opens CV2 and CV277 and selects AUTO for each valve		
	3	VERIFY OPEN CV7 (LETDOWN ISOL VALVE)	Opens CV7		
	4	ADJUST CV55 (CHARGING FLOW CONTROL VALVE) TO RAISE CHARGING FLOW TO AT LEAST 87 GPM	Adjusts CV55 to obtain no less than 87 gpm on the charging flow indicator.		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: PRESSURIZER

TASK: Lower RCS Pressure during a natural circulation cooldown IAW EOP-TRIP-4

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	5	PERFORMS THE FOLLOWING ACTIONS SIMULTANEOUSLY: <ul style="list-style-type: none"> • OPEN ONLY ONE ORIFICE ISOLATION VALVE • ADJUST CV18 (LETDOWN PRESSURE CONTROL VALVE) TO MAINTAIN LETDOWN PRESSURE AT 300 PSIG 	<p><i>Note:</i> If info. requested, <i>CUE</i> the operator to place a 75 gpm orifice in service (CV4 or 5).</p> <p>Opens CV3, 4, or 5 (Letdown Orifice Isolation Valves) and adjusts CV18 to control letdown pressure such that the letdown line relief valve does not lift (600 psig).</p>		
*	6 SIM OPER: FAIL CV18 CLOSED	PLACE THE FOLLOWING IN AUTO: <ul style="list-style-type: none"> • CV18 • MASTER FLOW CONTROLLER • CV55 	<ul style="list-style-type: none"> • CV18 in AUTO* • Master Flow Controller in AUTO • CV55 in AUTO <p>* The candidate must recognize that CV18 has failed closed and that Letdown is not in service prior to exceeding a 320°F PZR Saturation-Charging ΔT</p> <p><i>CUE:</i> If the RO candidate has determined that CV18 is failed closed and is looking for further direction, tell him/her to close the orifice isolation valve that was opened and continue with the procedure</p>		
	7	IS LETDOWN IN SERVICE	Answers NO		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: PRESSURIZER

TASK: Lower RCS Pressure during a natural circulation cooldown IAW EOP-TRIP-4

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	8	CAUTION STATEMENT: PZR PORV CYCLING SHOULD BE MINIMIZED	Reads statement		
*	9	USE ONLY ONE PZR PORV TO LOWER RCS PRESSURE TO 1865 PSIG	Opens only PR1 <u>OR</u> PR2		
	10	WAIT UNTIL RCS PRESSURE LESS THAN 1865	Monitors RCS pressure		
*	11	CLOSE BOTH PZR PORV's	Closes the open PORV at $\leq 1865 \geq 1765$ PSIG		
		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. Off-site power has been lost. All vital busses are being powered from their respective EDG. The crew is conducting a natural circulation cooldown IAW TRIP-4.

INITIATING CUE:

Beginning at the BLOCK HI STEAM LINE FLOW SI step, perform the steps of TRIP-4.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: CVCS
TASK: Perform RCS make-up with CVCS Makeup Controller in the MANUAL Mode
TASK NUMBER: 0040130101
JPM NUMBER: FOXTROT NRC - RO S4

ALTERNATE PATH: K/A NUMBER: 004 A4.07
IMPORTANCE FACTOR: RO 3.9 SRO 3.7
APPLICABILITY: EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: S2.OP-SO.CVC-0006

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 15 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:

Patch D. [Signature]
BARGAINING UNIT REPRESENTATIVE

[Signature]
TRAINING SUPERVISOR

[Signature]
OPERATIONS MANAGER
Be Designate

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: CVCS

TASK: Perform RCS make-up with CVCS Makeup Controller in the MANUAL Mode

TASK NUMBER: 0040130101

INITIAL CONDITIONS:

1. IC-189
2. Lower VCT level to the AUTO M/U setpoint
3. Fail VCT LT-112 HIGH
4. Snap to disk

INITIATING CUE:

You are the Reactor Operator. The CVCS AUTO M/U function is inoperable due to the failure of LT-112. RCS boron concentration is 550 ppm. Perform a makeup with the Makeup Mode Controller in MANUAL.

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: Perform RCS make-up with CVCS Makeup Controller in the MANUAL 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" and marked up S2.OP-SO.CVC-0006 if simulator copy will not be used	Reviews conditions and procedure		
		START TIME:			
*	1.	Obtain Boric Acid Flow setpoint using existing RCS boron concentration from S2.RE-RA.ZZ-0012(Q), Reactor Eng'g Manual, Figure 100A	CUE: RCS boron concentration is 550 ppm. Provide a copy of REM Fig. 100A after the candidate has located the curve in the REM Determines 5.0-7.0 gpm		
*	2.	Depress Makeup Control Mode Select STOP PB Reset Count A on Make-up registers	STOP PB illuminated		
	3.	Place 2CV179, PRI WTR FLOW CONTROL VALVE, in MANUAL	2CV179 MANUAL PB illuminated		
	4.	Place 2CV172, BA FLOW CONTROL VALVE, in MANUAL	2CV172 MANUAL PB illuminated		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: CVCS

TASK: Perform RCS make-up with CVCS Makeup Controller in the MANUAL Mode

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5.	Align outlet of Boric Acid Blender to one of the following: A. Open 2CV185, MAKEUP FROM BLENDER TO CHG PUMP SUCTION, OR, B. Open 2CV181, MAKEUP FROM BLENDER TO VCT	Either 2CV185 or 2CV181 PB illuminated. Preferred path is through 2CV185		
	6.	Start Primary Water Pump	Either PW Pump running		
	7.	Place Boric Acid Pump in MANUAL/ FAST Speed	Either BA Pump running in FAST		
*	8.	Manually adjust 2CV172 setpoint to REM Figure 100A value. If required BA Flow is not achieved, then close 21 and 22CV160 (Recirculation Valves)	Using INC/DEC PB's, adjusts BA Flow to 5-7 gpm		
*	9.	Manually adjust 2CV179 setpoint to 62 gpm	Using INC/DEC PB's, adjusts PW Flow to 62 +/- 2gpm CUE: If makeup is in progress then inform operator the AUTO STOP setpoint has been reached and the makeup can be terminated		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: CVCS

TASK: Perform RCS make-up with CVCS Makeup Controller in the MANUAL Mode

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	10.	When desired to terminate makeup, perform the following: <ul style="list-style-type: none"> • Close 2CV179 • Close 2CV172 • Close CV185 • Close CV181 • Stop PW Makeup Pump • Place BA Pump selected in SLOW Speed • Return CVCS M/U Control System to AUTO IAW Section 5.1 of this procedure 	<ul style="list-style-type: none"> • CV179 CLOSE PB illuminated • CV172 CLOSE PB illuminated • CV185 CLOSE PB illuminated • CV181 CLOSE PB illuminated • PW Pump STOP PB illuminated • Correct BA Pump SLOW PB illuminated <p>NOTE: Terminate JPM when the BA Pump is in SLOW</p>		
		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 CVCS AUTO M/U function is inoperable due to the failure of LT-112. RCS boron concentration is 550 ppm.

INITIATING CUE:

You are the Reactor Operator. Perform a makeup with the Makeup Mode Controller in MANUAL.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____

DATE: _____

SYSTEM: CONTAINMENT

TASK: Perform a CNTMT Pressure Relief with R12A in service

TASK NUMBER:

INITIAL CONDITIONS:

1. Unit at power
2. 2R16 and 2R41 OOS
3. Raise CNTMT Pressure so that Pressure Relief is necessary
4. Snap IC-190

INITIATING CUE:

Unit 2 is at 100% power, with 2R16 and 2R41 OOS. Containment differential pressure is 0.25. Perform a containment pressure relief with 2R12A in service.

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

TASK: Perform a CNTMT Pressure Relief with R12A in service

# *	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 S2.OP-SO.CBV-0002	Reviews conditions and procedure CUE: Source Check on Attachment 1 is completed.		
		START TIME:			
	1	RECORD the following on Att. 2: <ul style="list-style-type: none"> • Pressure Relief start • Initial Containment Pressure • Initial reading of monitor 2R12A 	Records required information on Attachment 2 <ul style="list-style-type: none"> • Time/Date • CNMT pressure • 2R12A reading 		
	2	INITIATE Containment Relief as follows:			
	3	Monitor available radiation monitors 2R41D, 2R16 & 2R12A	Checks 2R12A indication		
	4	If Containment pressure <0.5 psig, then:	Determines containment pressure <0.5 psig		
*	5	Open 2VC6, ISOL VLV	Opens 2CV6		
*	6	Open 2VC5, ISOL VLV	Opens 2VC5		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: **CONTAINMENT**

TASK: **Perform a CNTMT Pressure Relief with R12A in service**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	7	Open PRESSURE RELIEF DAMPER	Opens Pressure Relief Damper		
	8	RECORD time that 2VC5 and 2VC6 are OPENED in the Control Room Narrative log for the Cyclic Data Monitoring Program IAW required procedure.	Logs or otherwise notes time of opening 2VC5 & 2VC6 CUE: Opening time is recorded in the Narrative Log		
*	9	When Containment Pressure decreases to required value, CLOSE <ul style="list-style-type: none"> • PRESSURE RELIEF DAMPER • 2VC6 • 2VC5 	CUE: Containment differential pressure indicates 0.0 psig Determines containment pressure at required value and: <ul style="list-style-type: none"> • Pressure Relief Damper closed • 2VC5 closed • 2VC6 closed 		
	10	RECORD the following on applicable attachment: <ul style="list-style-type: none"> • Final Containment Pressure • Pressure Relief stop • Highest reading on available radiation monitors 2R41D, 2R16, and 2R12A 	Records the required information on Attachment 2 <ul style="list-style-type: none"> • Time/Date CUE: <ul style="list-style-type: none"> • Cnmt Pressure 0.0 psig • Highest 2R12A reading 550 CPM 		

OPERATOR TRAINING PROGRAM
 JOB PERFORMANCE MEASURE

NAME: _____
 DATE: _____

SYSTEM: **CONTAINMENT**

TASK: **Perform a CNTMT Pressure Relief with R12A in service**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	11	RECORD time that 2VC5 and 2VC6 are CLOSED in the Control Room Narrative Log for the Cyclic Data Monitoring Program.	Logs or otherwise notes time of closing 2VC5 & 2VC6 <i>CUE:</i> Closing time is recorded in the Narrative Log		
		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. Unit 2 is at 100% power, with 2R16 and 2R41 OOS. Containment differential pressure is 0.25

INITIATING CUE:

Perform a containment pressure relief with 2R12A in service.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
 SYSTEM: Electrical Distribution
 TASK: Failure of 2C 4KV Vital Bus to transfer to the Alternate Source
 TASK NUMBER: 1140050401
 JPM NUMBER: FOXTROT NRC - RO S6

ALTERNATE PATH: K/A NUMBER: 062 A4.01
 IMPORTANCE FACTOR: 3.3 3.1
 RO SRO
 APPLICABILITY:
 EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: S2.OP-SO.4KV-0003
 S2.OP-AB.4KV-0003

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 15 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:

Patricia L. [Signature] 5-6-01
 BARGAINING UNIT REPRESENTATIVE
Pete [Signature]
 TRAINING SUPERVISOR
[Signature] 5-6-01
 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: Electrical Distribution**TASK:** Failure of 2C 4KV Vital Bus to transfer to the Alternate Source**TASK NUMBER:** 1140050401**INITIAL CONDITIONS:**

1 Use IC-191 on CD

SIMULATOR OPERATOR CAUTION

Event 1 must be "Accepted" before it will function. The following steps must be completed to Accept the event and enable the Event Trigger:

1. Reset to IC
2. Go to "RUN" – The simulator must be in "Run" to accept the event.
3. Open "FLOW" events
4. Double click on Event 1
5. Click on ACCEPT EVENT

INITIATING CUE:

The unit is at 100% power. 23 Station Power Transformer will be removed from service while an oil leak is repaired. Transfer 2C Vital Bus to 24 Station Power Transformer.

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 Distribution

TASK: Failure of 2C 4KV Vital Bus to transfer to the Alternate Source

# *	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 S2.OP-SO.4KV-0003	Reviews conditions		
		START TIME:			
	1	ENSURE the following conditions exist prior to transferring 2C 4KV Vital Bus from one SPT to the other SPT: <ul style="list-style-type: none"> • 2C 4KV Vital Bus 125 VDC control power is energized. • 2C 4KV Vital Bus 28 VDC control power is energized. • SPT assuming load is energized and available for service. 	Step signed off in procedure		
	2	IF 2CC131, RCP THERMAL BARRIER ISOLATION, is in AUTO, then place in MANUAL	2CC131 in MANUAL (OPEN)		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: **Electrical Distribution**
TASK: **Failure of 2C 4KV Vital Bus to transfer to the Alternate Source**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
	3	IF transferring 2C 4KV Vital Bus from 23 SPT to 24 SPT, THEN: ENSURE ALL Overhead Annunciators for the 24 SPT are clear.	Verifies no OHA alarms on K Section		
	4	PRESS Mimic Bus 2C VITAL BUS INFEED 24CSD BREAKER pushbutton AND ENSURE Console Bezel 24CSD MIMIC BUS INTLK CLOSE SELECTION illuminates.	<ul style="list-style-type: none"> Mimic Bus 2A VITAL BUS INFEED 24CSD BREAKER button is yellow Verifies 24CSD MIMIC BUS INTLK CLOSE SELECTION illuminated 		
	5	PRESS and HOLD Console Bezel 24CSD CLOSE pushbutton RELEASE pushbutton when 24 CSD indicates CLOSED or when a SEC UV Safeguards Actuation occurs	Notes 24CSD failed to close and 2C Bus de-energized Responds to alarms and enters S2.OP-AB.4KV-0003		
	6	AB.4KV-3 Was 22 Charging Pump providing Charging and Seal Injection?	Checks and answers YES		
#	7	Close 2CV55	2CV55 in MANUAL and closed		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM: **Electrical Distribution**

TASK: **Failure of 2C 4KV Vital Bus to transfer to the Alternate Source**

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
* #	8	Start 21 Charging Pump	21 Charging Pump running		
	9	Is 21 Charging Pump running?	Answers YES		
	10	Adjust CV55 to obtain desired flow	May raise flow to recover minor change in PZR level but can be left at minimum since Letdown is isolated		
	11	Ensure Seal Injection flow 6-12 gpm to each RCP, not to exceed 40 gpm total	Seal Injection flow ≥6 gpm each, <40 gpm total		
*	12	PLACE 21 Primary Water Pump in AUTO	21 Primary Water Pump in AUTO		
*	13	PLACE 21 BAT Pump in AUTO	21 BAT Pump in AUTO		
	14	Is 2C 4KV Vital Bus energized from the Diesel Generator?	Checks the 2C Diesel Bezel and 2C Bus voltage and answers NO		
		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. 23 Station Power Transformer will be removed from service while an oil leak is repaired.

INITIATING CUE:

Transfer 2C Vital Bus to 24 Station Power Transformer.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NO. 147715-22-0010(4)

STATION: SALEM
SYSTEM: COMPONENT COOLING WATER (CCW)
TASK: Start a CCW Pump IAW APPX-1 with 2B 4KV Vital Bus de-energized
TASK NUMBER: 1150420501
JPM NUMBER: FOXTROT NRC - RO S7

ALTERNATE PATH: K/A NUMBER: EPE 007 EA1.04
IMPORTANCE FACTOR: 3.6 3.7
APPLICABILITY: RO SRO
EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator (Perform)

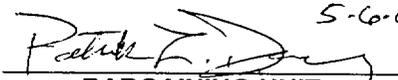
REFERENCES: 2-EOP-TRIP-1
2-EOP-APPX-1

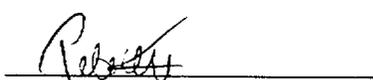
TOOLS AND EQUIPMENT:

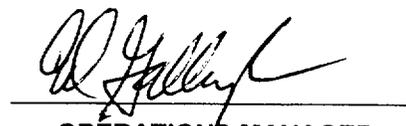
VALIDATED JPM COMPLETION TIME: 10 Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER
on drug

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

NO. 1 & 2B-22-0010(2)

NAME: _____

DATE: _____

SYSTEM: CCW

TASK: Start a CCW Pump IAW APPX-1 with 2B 4KV Vital Bus de-energized

TASK NUMBER: 1150420501

INITIAL CONDITIONS:

1. IC-192
2. DBA LOCA with loss of off-site power and 2B Vital Bus fails to energize due to an electrical fault.
3. Perform steps of EOP-TRIP-1, up to the CCW Pump Operation Evaluation block
4. Snap IC-192 to disc

INITIATING CUE:

A reactor trip/SI with a loss of off-site power occurred a few minutes ago. It appears that a DBA LOCA has occurred. 2A and 2C 4KV Vital Buses are energized from their respective EDG. 2B 4KV Vital Bus tripped on an electrical fault. As the 3rd NCO, the CRS has directed you to start one CCW Pump IAW 2-EOP-APPX-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:

TASK: **Start a CCW Pump IAW APPX-1 with 2B 4KV Vital Bus de-energized**

# *	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	Check 4KV Bus Status Check at least one vital bus energized by station power transformer	Determines no vital busses powered from station power transformers and takes RNO path		
	2	Check ECCS and AFW Pump Status	Determines all ECCS and AFW Pumps running on 2A and 2C Vital Buses		
	3	Check one CCW Pump running	RNO		
	4	Select a CCW Pump start strategy	Operators selects Step 8, 2B Vital Bus de-energized		
	5	If 2A and 2C Vital Buses energized, then start 23 CCW Pump as follows: • Check 23 CCW Pump available	CUE: 23 CCW Pump was running before the accident and is available		
#	6	• Block 2C SEC	Blocks 2C SEC on 2RP1		
#	7	• Reset 2C SEC	Resets 2C SEC		

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NAME: _____
DATE: _____

SYSTEM:

TASK: Start a CCW Pump IAW APPX-1 with 2B 4KV Vital Bus de-energized

# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
# *	8	<ul style="list-style-type: none"> Stop 22 CS Pump 	<p><i>CUE:</i> If necessary, as CRS, acknowledge that 22 CS Pump will be stopped</p> <p>22 CS Pump stopped</p>		
*	9	<ul style="list-style-type: none"> Start 23 CCW Pump 	23 CCW Pump running		
#	10	<ul style="list-style-type: none"> Reset Containment Spray 	Resets Train A and Train B Containment Spray		
# *	11	<ul style="list-style-type: none"> Close 22CS2, 22CS Pump Discharge Valve 	22CS2 closed		
		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/SI with a loss of off-site power occurred a few minutes ago. It appears that a DBA LOCA has occurred. 2A and 2C 4KV Vital Buses are energized from their respective EDG. 2B 4KV Vital Bus tripped on an electrical fault.

INITIATING CUE:

As the 3rd NCO, the CRS has directed you to start one CCW Pump IAW 2-EOP-APPX-1. Disregard all unrelated 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: <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> 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 AFW Pp

# *	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?	<i>CUE:</i> No. 23 AFW Pp will not be operated.		
*	6	<p>Perform the following to take manual control of 21AF21, Aux Feed-S/G Level Control Valve:</p> <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 <p><i>CUE:</i> Open 21AF21 approx. 25%</p> <ul style="list-style-type: none"> • Discusses how to open 21AF21 <p><i>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.</i></p>		

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><i>CUE:</i> 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
OR 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.)	CUE: The diesel is NOT running CUE: 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.

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM
SYSTEM: Electrical (115 VAC)
TASK: Xfer ASDS Inverter to DC
TASK NUMBER: 1140140401
JPM NUMBER: FOXTROT NRC – RO/SRO In-Plant 3

ALTERNATE PATH: K/A NUMBER: APE 068 AA1.12
IMPORTANCE FACTOR: 4.4 4.4
RO SRO
APPLICABILITY: EO RO STA SRO

EVALUATION SETTING/METHOD: Simulator (Perform)

REFERENCES: S1.OP-SO.115-0002

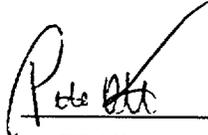
TOOLS AND EQUIPMENT: JAM Key

VALIDATED JPM COMPLETION TIME: 15 minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

APPROVAL:


BARGAINING UNIT REPRESENTATIVE


TRAINING SUPERVISOR


OPERATIONS MANAGER OR 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: 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.	<i>CUE:</i> 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) <i>CUE or AS READ:</i> <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 <i>CUE:</i> <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