OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM

SYSTEM: Instrumentation (SF 7) – Reactor Protection System

TASK: Locally Open Reactor Trip Breakers IAW AB.CR-0001.

TASK NUMBER: 1130070501

JPM NUMBER: 20-01 NRC IP-j

ALTERNATE PATH: [ ]

K/A NUMBER: 012 A4.06

IMPORTANCE FACTOR:	4.3	4.3
	RO	**SRO**

APPLICABILITY:
EO [ ] **RO** [X] **STA** [ ] **SRO** [X]

EVALUATION SETTING/METHOD: In Plant / Simulate

REFERENCES: S1.OP-AB.CR-0001, Rev. 19 (checked 9-10-21)

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: 25 min

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

Developed By:	**K, Hantho** **Instructor**	**Date: 9-20-21**
Validated By:	**Harris / Stockton** **SME or Instructor**	**Date: 9-20-21**
Approved By:	**M. Wadusky (signature on file)** **Training Department**	**Date: 2-10-22**
Approved By:	**W. Hargrave** **Operations Department**	**Date: 1-11-22**

ACTUAL JPM COMPLETION TIME:

ACTUAL TIME CRITICAL COMPLETION TIME:

PERFORMED BY:

GRADE: [ ] **SAT** [ ] **UNSAT**

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: **DATE:**

REVISION HISTORY

JPM NUMBER: 20-01 NRC ILOT IP-j

Rev #	Date	Description	Validation Required
00	6-20-17	Added revision history and simulator setup pages. Editorial comments from IP 71111.11 FASA. Incorporated comments from validation.	No
N/A	6-25-19	Last used on 2019 Annual Exam. Re-validation not required.	No
01	9-10-21	Checked revision of procedure for changes and updated attachment 5 sht 1 of 4 only change was rev. number.	No

SIMULATOR SETUP INSTRUCTIONS

SYSTEM: Instrumentation (SF 7) – Reactor Protection System

TASK: Locally Open Reactor Trip Breakers IAW AB.CR-0001.

TASK NUMBER: 1130070501

SIMULATOR IC: N/A

MALFUNCTIONS / REMOTES: N/A

OVERRIDES: N/A

SPECIAL INSTRUCTIONS:

- **This JPM is located inside the <u>Unit 1</u> RCA <u>AND</u> 84' Switchgear Room.**

NAME: _____

DATE: _____

SYSTEM: Instrumentation (SF 7) – Reactor Protection System

TASK: Locally Open Reactor Trip Breakers IAW AB.CR-0001.

TASK NUMBER: 1130070501

INITIAL CONDITIONS:

- The Unit 1 Control Room has been evacuated in accordance with S1.OP-AB.CR-0001, Control Room Evacuation.
- A reactor trip was **NOT** initiated prior to evacuating the Control Room.

INITIATING CUE:

- You are directed to perform **Unit 1** S1.OP-AB.CR-0001, Control Room Evacuation, Attachment 5.

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.

Task Standard for Successful Completion:

1. **Locally opens Reactor Trip and Bypass Breakers**
2. **Locally opens breakers for 13 Charging Pump and 1CV175 Rapid Borate valve.**

SYSTEM: **Instrumentation (SF 7) – Reactor Protection System**

TASK: **Locally Open Reactor Trip Breakers IAW AB.CR-0001.**

* #	STEP NO.	STEP (Shaded area denotes Critical Step) (* Critical Step) (# Sequential Critical Step)	STANDARD (Bolded area identifies Task Standard)	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Evaluator provide blank copy of Attachment 5, and state: "You have a radio and all required keys."			
		Operator reviews S1.OP-AB.CR-0001, Att. 5, and proceeds to El. 84 switchgear room.			
	CUE:	Fill in the JPM Start Time when the student acknowledges the Initiating Cue. **START TIME**:_____			
	1.0	**OBTAIN** the following: • One copy of this procedure. • One radio (located in Appendix "R" Cabinet) • Key ring set and tools (JA Master, Breaker Keyswitch, screwdriver and adjustable wrench). • A Security Master Key from the Unit 1 CRS (located on the Unit 1 Security Key Ring)	**Cue: You have all the necessary materials for your task.**		

SYSTEM: **Instrumentation (SF 7) – Reactor Protection System**

TASK: **Locally Open Reactor Trip Breakers IAW AB.CR-0001.**

* #	STEP NO.	STEP (Shaded area denotes Critical Step) (* Critical Step) (# Sequential Critical Step)	STANDARD (Bolded area identifies Task Standard)	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	2.0	**PROCEED** to Rod Drive MG Set Control Panel (460V Vital Bus Room-El 84'), AND **OPEN** the following breakers: 2.1 Reactor Trip Breaker A 2.2 Reactor Trip Breaker B 2.3 Reactor Trip Bypass Breaker A 2.4 Reactor Trip Bypass Breaker B.	**Operator simulates opening breakers by simulating removing cover <u>and</u> depressing the trip (open) Pushbuttons.** **<u>CUE</u>: *After simulating opening closed breakers state the following: the breaker is OPEN*.**		
	3.0	**CONFIRM** with the Hot Shutdown Panel Operator (PO) that 11 or 12 Charging Pump is operating.	**<u>CUE</u>: *11 charging pump is operating*.**		
*	4.0	**PROCEED** to 1AX1AX7X, #13 Charging Pump breaker AND **OPEN** the breaker.	**Locates 1AX1AX7X, #13 Charging Pump breaker AND simulates depressing the trip PB to open the breaker.** **<u>CUE</u>: *After simulating opening breaker state the following: the breaker is OPEN*.**		

SYSTEM: **Instrumentation (SF 7) – Reactor Protection System**

TASK: **Locally Open Reactor Trip Breakers IAW AB.CR-0001.**

* #	STEP NO.	STEP (Shaded area denotes Critical Step) (* Critical Step) (# Sequential Critical Step)	STANDARD (Bolded area identifies Task Standard)	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*	5.0	**PROCEED** to 1C West Valve & Misc 230V Control Center-El 84', AND **OPEN** Breaker 1CY2AX4I, 1CV175-Rapid Borate Stop Valve.	**Locates 1C West Valve & Misc 230V Control Center-El 84', and simulates opening Breaker 1CY2AX4I, 1CV175-Rapid Borate Stop Valve.** **CUE: *After simulating opening breaker state the following: the breaker is OPEN.***		
	6.0	**NOTIFY** the CRS of the following: 6.1 The Reactor Trip and Bypass breakers are OPEN 6.2 #13 Charging Pump Breaker is OPEN.	Contact CRS and reports the Reactor Trip and Bypass breakers are open and #13 Charging Pump Breaker is open. **JPM Complete**		
	CUE:	WHEN operator informs you the task is complete, OR the JPM has been terminated for other reasons, THEN **RECORD** the STOP TIME. **STOP TIME**:_____	**Terminate JPM when operator completes Step 6.**		

JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM#: 20-01 NRC ILOT IP-j

NOTE: All steps of this checklist should be performed upon initial validation. Prior to JPM usage, revalidate JPM using steps 8 and 11 below.

____R____ 1. Task description and number, JPM description and number are identified.

____R____ 2. Knowledge and Abilities (K/A) references are included.

_____ 3. Performance location specified. (in-plant, control room, or simulator)

____R____ 4. Initial setup conditions are identified.

____R____ 5. Initiating and terminating Cues are properly identified.

____R____ 6. Task standards identified and verified by SME review.

____R____ 7. Critical steps meet the criteria for critical steps and are identified with an asterisk (*).

____R____ 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure: Procedure Rev. _19____ Date _____3/18/21_____

____R____ 9. Pilot test the JPM:
a. verify Cues both verbal and visual are free of conflict, and
b. ensure performance time is accurate.

____NA____ 10. If the JPM cannot be performed as written with proper responses, then revise the JPM.

_____NA___ 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

SME/Instructor:_____R. Chan_____ Date: _1-11-22_____

SME/Instructor:_____ Date: _____

SME/Instructor:_____ Date: _____

INITIAL CONDITIONS:

- The Unit 1 Control Room has been evacuated in accordance with S1.OP-AB.CR-0001, Control Room Evacuation.
- A reactor trip was **NOT** initiated prior to evacuating the Control Room.

INITIATING CUE:

You are directed to perform **Unit 1** S1.OP-AB.CR-0001, Control Room Evacuation, Attachment 5.

ATTACHMENT 5
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REACTOR OPERATOR

___ 1.0 **OBTAIN** the following:

- One copy of this procedure.
- One radio (located in Appendix "R" Cabinet)
- Key ring set and tools (JA Master, Breaker Keyswitch, screwdriver and adjustable wrench).
- A Security Master Key from the Unit 1 CRS (located on the Unit 1 Security Key Ring) [C0363]

___ 2.0 **PROCEED** to Rod Drive MG Set Control Panel (460V Vital Bus Room-El 84'), AND **OPEN** the following breakers:

___ 2.1 Reactor Trip Breaker A

___ 2.2 Reactor Trip Breaker B

___ 2.3 Reactor Trip Bypass Breaker A

___ 2.4 Reactor Trip Bypass Breaker B.

___ 3.0 **CONFIRM** with the Hot Shutdown Panel Operator (PO) that 11 or 12 Charging Pump is operating.

___ 4.0 **PROCEED** to 1AX1AX7X, #13 Charging Pump breaker AND **OPEN** the breaker.

___ 5.0 **PROCEED** to 1C West Valve & Misc 230V Control Center-El 84', AND **OPEN** Breaker 1CY2AX4I, 1CV175-Rapid Borate Stop Valve.

___ 6.0 **NOTIFY** the CRS of the following:

___ 6.1 The Reactor Trip and Bypass breakers are OPEN

___ 6.2 #13 Charging Pump Breaker is OPEN.

___ 7.0 **CONFIRM** with NEO #1 that 1CV71, Chr Hdr PCV, is isolated (1CV70) and bypassed (1CV73) and that flow is being maintained to RCP seals at flowrate of 6 to 10 gpm to each seal.