OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

STATION: SALEM

SYSTEM: Abnormal Plant Evolutions

TASK: Locally Control Charging Flow IAW S2.OP-AB.CR-0001.

TASK NUMBER: 1130070501

JPM NUMBER: 19-01 NRC IP-i

ALTERNATE PATH: [ ]

K/A NUMBER: APE 068 AA1.22

IMPORTANCE FACTOR:	**RO**	**SRO**
	4.0	4.3

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

EVALUATION SETTING/METHOD: In Plant / Simulate

REFERENCES: S2.OP-AB.CR-0001, Rev. 23 (checked 1-15-20)

TOOLS AND EQUIPMENT: JAM Key

VALIDATED JPM COMPLETION TIME: 10 min

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

Developed By:	**R. Chan** **Instructor**	**Date: 1-15-20**
Validated By:	**Moore / Klein** **SME or Instructor**	**Date: 1-16-20**
Approved By:	**N/A** **Training Department**	**Date:**
Approved By:	**N/A** **Operations Department**	**Date:**

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: 19-01 NRC IP-i

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
01	9-18-19	APE 068 AA1.22: Ability to operate and/or monitor the following as they apply to the Control Room Evacuation: Flow control valve for RCS charging header Deleted actions to locally trip the reactor. Added photo of Panel 216 to assist evaluator.	Yes

SIMULATOR SETUP INSTRUCTIONS

SYSTEM: Abnormal Plant Evolutions

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TASK NUMBER: 1130070501

SIMULATOR IC: N/A

MALFUNCTIONS / REMOTES: N/A

OVERRIDES: N/A

SPECIAL INSTRUCTIONS:

- **This JPM is located inside the <u>Unit 2</u> RCA.**
- **NOTE: <u>Evaluator must have a JAM key to give to operator at start of JPM. Operators do not have individual JAM keys</u>!**
- **Notification to control room will be required when opening panel door in charging alley.**

NAME: _____

DATE: _____

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TASK NUMBER: 1130070501

INITIAL CONDITIONS:

- The Unit 2 Control Room has been evacuated in accordance with S2.OP-AB.CR-0001, Control Room Evacuation.
- A reactor trip from 100% was initiated prior to evacuating the Control Room.

INITIATING CUE:

- You are directed to take local control of charging flow IAW S2.OP-AB.CR-0001, Control Room Evacuation, Attachment 5, starting at Step 8.0 (**see attached page**).
- Steps 1.0-7.0 of Attachment 5 have been completed.

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 controls Charging flow using hand air operator IAW S2.OP.AB.CR-0001**
2. **Correctly adjusts air operator to change charging flow to the desired flow of 70 gpm.**

SYSTEM: **Abnormal Plant Evolutions**
TASK: **Locally Control Charging Flow IAW S2.OP-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, **a JAM Key**, and state: "You have a radio and all required keys."			
	CUE:	Fill in the JPM Start Time when the student acknowledges the Initiating Cue. **START TIME**:_____			
			Proceeds to Unit 2 Panel 216-1, Chg Pmps FL & PR Inst Pnl. **Examiner's Note:** Panel 216-1 will cause an alarm in the Control Room when opened. The Control Room must be notified **prior** to opening this panel, and when it is secured.		
	8.0	**TAKE** control of 2CV55, Cent Chg Pmp Flow Cont Valve, by performing the following:			
	8.1	**RECORD** the charging flow as indicated on 2FI-128A. _____ gpm indicated on 2FI-128A	Records charging flow from 2FI-128A, Charging Pump Flow Indication. (**Typically around 90 gpm**)		
*	8.2	**PLACE** local E/P Bypass Line Selector Valve in Manual.	**Locates local E/P Bypass Selector Valve and simulates rotating valve (clockwise) to MAN position.**		

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* #	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)
	8.3	Using the MANUAL hand air operator, **ENSURE** that the flow rate as noted in Step 8.1 is being maintained with 2CV55.	Reads flowrate from 2FI-128A (**Note: field labeled as 2FT-128A**), Charging Pump Flow Indication to ensure the flow rate is maintained with 2CV55. **CUE #1:** *The flow rate is the same as recorded in Step 8.1. The CRS directs you to adjust charging flow to **70 gpm.** (**OR** a value not currently indicating on 2FI-128A).* **Examiner's Note**: the task here is to see if the operator understands how to operate the hand sender to adjust charging flow.		

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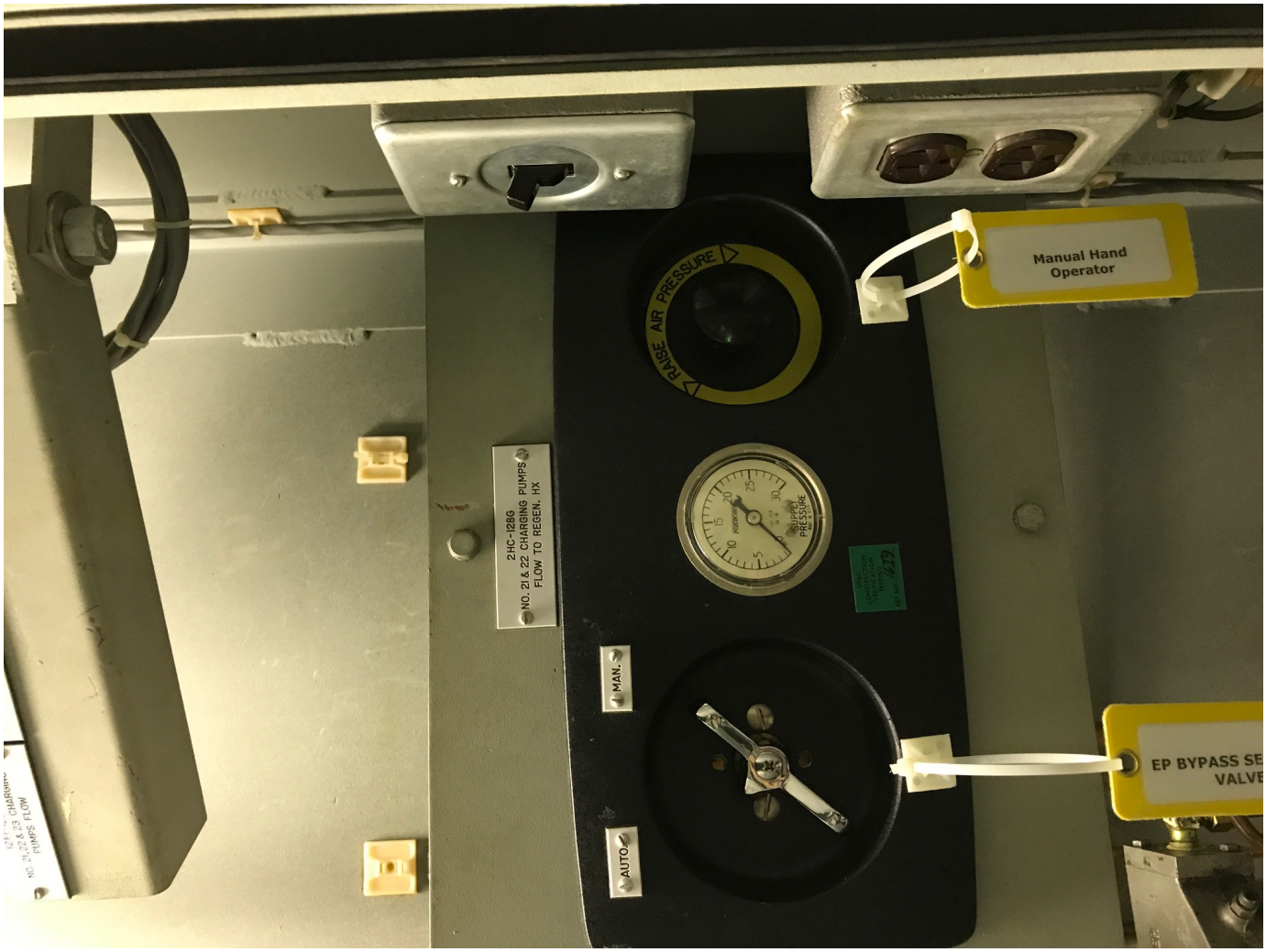
* #	STEP NO.	STEP (Shaded area denotes Critical Step) (* Critical Step) (# Sequential Critical Step)	STANDARD (Bolded area identifies Task Standard)	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
*		Adjust charging flow using hand air operator.	**Simulates rotating hand air operator in the clockwise direction to RAISE air pressure to lower charging flow to 70 gpm.** **CUE #1: *Charging flow is 70 gpm.*** **CUE #2:** IF hand sender is rotated counter-clockwise,THEN state the following: ***charging flow has increased to 100 gpm.*** **Examiner's Note:** Raising air pressure lowers flow, Decreasing air pressure raise flow. (2CV55 fails open on loss of air) **CUE #3: JPM is Complete when flow is adjusted to the desired value.**		
	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 adjusting charging flow.**		

Inside Charging Panel 216:



JOB PERFORMANCE MEASURE VALIDATION CHECKLIST

JPM#: **19-01 NRC IP-i**

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

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

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

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

RC 4. Initial setup conditions are identified.

RC 5. Initiating and terminating Cues are properly identified.

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

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

RC 8. Verify the procedure referenced by this JPM matches the most current revision of that procedure: Procedure Rev. __23___ Date ___1-15-20____

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

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

N/A 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

SME/Instructor: R. Chan Date: 1-15-20

SME/Instructor: R. Moore Date: 1-16-20

SME/Instructor: J. Klein Date: 1-16-20

INITIAL CONDITIONS:

- ❖ The Unit 2 Control Room has been evacuated in accordance with S2.OP-AB.CR-0001, Control Room Evacuation.
- ❖ A reactor trip from 100% was initiated prior to evacuating the Control Room

INITIATING CUE:

- ❖ You are directed to take local control of charging flow IAW S2.OP-AB.CR-0001, Control Room Evacuation, Attachment 5, starting at Step 8.0 (**see attached page**).
- ❖ Steps 1.0-7.0 of Attachment 5 have been completed.

ATTACHMENT 5
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REACTOR OPERATOR

NOTE

The following indications and controls are available for local operation at Unit 2 CVC Chg Pmps FL & PR Inst Pnl, Panel 216-2:

- 2CV55 AUTO/MANUAL Selector Switch (2HC-128G No. 21 & 22 Charging Pumps Flow to Regen HX)
- 2CV55 Manual HAND/AIR Regulator Control
- Charging Pump Flow Indication, 2FI-128A
- 21 and 22 Charging Pump Pressure Indication, 2PI-142B
- VCT Level Indication 2LT-114.

___ 8.0 **TAKE** control of 2CV55, Cent Chg Pmp Flow Cont Valve, by performing the following:

___ 8.1 **RECORD** the charging flow as indicated on 2FI-128A.

_____ gpm indicated on 2FI-128A

___ 8.2 **PLACE** local E/P Bypass Line Selector Valve in Manual.

___ 8.3 Using the MANUAL hand air operator, **ENSURE** that the flow rate as noted in Step 8.1 is being maintained with 2CV55.

___ 8.4 **OBSERVE** local air pressure indicator to verify local control.

___ 9.0 **NOTIFY** the CRS and STA that Steps 1 through 8 of Attachment 5 are completed.