

**OPERATOR TRAINING PROGRAM  
JOB PERFORMANCE MEASURE**

**STATION:** SALEM  
**SYSTEM:** Fire Protection System (SF 8)  
**TASK:** Respond to Fire Alarm IAW S2.OP-AB.FIRE-0001  
**TASK NUMBER:** N0220080101  
**JPM NUMBER:** 20-01 NRC Sim-h

**ALTERNATE PATH:**  **K/A NUMBER:** 086 A4.02  
**IMPORTANCE FACTOR:**

3.5	3.5
<b>RO</b>	<b>SRO</b>

  
**APPLICABILITY:**  
EO  RO  STA  SRO

**EVALUATION SETTING/METHOD:** Simulator

**REFERENCES:** S2.OP-AB.FIRE-0001, Rev. 12, S2.OP-AR.ZZ-0001, Rev 59  
(checked 1-3-22)

**TOOLS AND EQUIPMENT:** None

**VALIDATED JPM COMPLETION TIME:** 10 min

**TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS:** N/A

**Developed By:** R. Chan **Date:** 1-3-22  
Instructor

**Validated By:** Protesto / Pompper **Date:** 1-10-22  
SME or Instructor

**Approved By:** M. Wadusky (signature on file) **Date:** 2-10-22  
Training Department

**Approved By:** W. Hargrave **Date:** 1-10-22  
Operations Department

**ACTUAL JPM COMPLETION TIME:**

**ACTUAL TIME CRITICAL COMPLETION TIME:**

**PERFORMED BY:**  
**GRADE:**  SAT  UNSAT

**REASON, IF UNSATISFACTORY:**

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**DATE:**

**EVALUATOR'S SIGNATURE:**

**REVISION HISTORY**

**JPM NUMBER: 20-01 NRC Sim-h**

<b>Rev #</b>	<b>Date</b>	<b>Description</b>	<b>Validation Required</b>
00	1-3-22	New JPM 086 K/A A4.02 3.5/3.5 – Ability to manually operate and/or monitor in the control room: Fire detection panels	Yes

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**SIMULATOR SETUP INSTRUCTIONS**

**SYSTEM:** Fire Protection System

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**TASK NUMBER:** N0220080101

**SIMULATOR IC:** IC-260

**MALFUNCTIONS:**

1. Reset the simulator to IC-260
2. Verify the following on the summary/ET trigger lists:

MALF ID #	Description	Delay Time	Initial Value	Ramp Time	Trigger	Final Value
01						
02						
03						
04						

**OVERRIDES/ REMOTES:**

REMF	Description	Assigned value
1	FP15D, Fire, Aux. Bldg., Relay & Bat Rooms (code 91)	FIRE

**EVENT TRIGGERS:**

ET #	Description	Assigned malfunction
1		
2		
3		
4		
5		
6		

**SPECIAL INSTRUCTIONS:** None

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**TASK  
NUMBER:** N0220080101

**INITIAL CONDITIONS:**

- ◆ 100% power.
- ◆ All systems are in Automatic and normal alignment.

**INITIATING CUE:**

- ◆ You are the Reactor Operator.
- ◆ Respond to all alarms and indications.

**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 (and NRC concurrence is obtained).

**Task Standard for Successful Completion:**

1. Upon fire alarm in control room, the operator makes page announcement for fire location, places Control Room Ventilation in FIRE INSIDE MODE, places the 2PR1 and 2PR2 in Manual and Closed, Closes 2PR6 and 2PR7, and dispatches operator to place the PZR PORV valves in EMERG CLOSE.

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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)
	CUE	Fill in the JPM Start Time when the student has had sufficient time to review the procedure and acknowledges the Initiating Cue.  <b>START TIME:</b> _____			
	CUE	<b>Simulator Operator: INSERT <u>RT-1</u> at direction from Examiner.</b>  <b>Remote: FP15D</b>  <b>This malfunction will actuate OHA A-7 FIRE PROT TRBL, A-8 FIRE PROT CO2/HALON DISCH, and coded fire alarm #91 on 2RP5 for Aux. Bldg., Relay &amp; Battery Room Fire.</b>	<b>Examiners Note:</b> Audible coded fire alarm will also be heard in the control room and will stop after approx..30 seconds. No operator action required to silence.		

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	NOTE	<p><b><u>Examiners Note:</u></b></p> <p>The operator should respond to the 2RP5 coded alarm to identify fire location and then refer to OHA A-7 and A-8 alarm response procedure per S2.OP-AR.ZZ-0001.</p> <p>ARP for OHA A-7 &amp; A-8 will direct the operator to go to S2.OP.AB-FIRE-0001 for valid fire alarm.</p>			
		<p><b>Actions for OHA A-7 and A-8, S2.OP-AR.ZZ-0001 start here:</b></p>	<p>Operator implements OHA A-7 &amp; A-8 alarm response procedure per S2.OP-AR.ZZ-0001</p>		
	1.0	<p>CAUSES:</p> <p>A. Coded fire alarm B. Fire alarm on 2RP5</p>	<p>Operator determines entry conditions to ARP is met based on 2RP5 fire alarm</p>		
	2.0	<p>AUTOMATIC ACTIONS:</p> <p>None</p>			
	3.0	<p>OPERATOR ACTIONS:</p>			

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*	3.1	<b>SCAN 2RP5 to determine Fire Zone, Area, and Elevation OR DETERMINE location IAW Alarm code List</b>	<b>Operator identifies fire alarm on 2RP5 is for Relay Room, 100 Ft. Elevation</b>		
	3.2	<b>IF AT ANY TIME</b> , fire indication for both Zones 59 and 74 on 2RP5 are received, THEN <b>OPEN 2FP147</b> , Fire Protection Containment Isolation	Operator marks step as N/A fire is not in containment.		
	3.3	<b>PERFORM</b> the following: A. <b>NOTIFY</b> the Emergency Services Department. B. <b>DISPATCH</b> Fire Brigade Liaison to the scene and determine extent/existence of the fire. C. <b>NOTIFY</b> Rad Protection to expedite access to the RCA or containment, as necessary. D. <b>NOTIFY</b> SM to implement the ECG	<b>CUE:</b> All notifications to the responsible individuals have been made <b>and</b> the Fire Brigade Liaison will be dispatch.		

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	3.4	<b>IF</b> alarm is valid, <b>THEN GO TO</b> S2.OP-AB.FIRE-0001(Q), Control Room Fire Response	Operator goes to S2.OP-AB.FIRE-0001  <b>CUE:</b> IF applicant dispatches operator to validate fire, THEN state, <b>operator says the room door is hot to the touch and will not go in for safety reasons.</b>		
		<b>Actions for S2.OP-AB.FIRE-0001 start here:</b>			
	3.1	RECORD the following information (as applicable):	Operator records the following applicable information in step 3.1.  Unit: 2 Building: Auxiliary Bldg. Elevation: 100 Ft. Callers Name: Not required Location: Relay Room Zone Number from 2RP5: 91 Fire Suppression System activated: YES		
	3.2	<b>NOTIFY</b> the Fire Department of the above information (by radio or phone X-2800)	<b>CUE:</b> Fire Department has been notified		

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*	3.3	<b>IF a station page system announcement has NOT yet been made, THEN ANNOUNCE the following:</b>  <b>"Attention all personnel - Attention all personnel. A fire is reported in Unit 2: (Indicate Building, Elevation &amp; Location)."</b> <b>◆ All personnel please evacuate the area."</b>	<b>Operator completes page announcement for fire in Unit 2 Relay Room 100 Ft. elevation.</b>		
	NOTE	The Operations Representative/Fire Brigade Liaison will make recommendations to SM/CRS what equipment needs to be removed from service to mitigate the fire and/or help stabilize the Unit. This procedure provides actions that are on-going and dependent on degree of plant degradation	Operator reads note and continues with procedure.		
	3.4	<b>DIRECT</b> an Operations Representative to assist the Fire Department as Fire Brigade Liaison (FBL) with the following information:	<b>CUE:</b> Shift Manager will direct an Ops Representative to be Fire Brigade Liaison (If not already performed in the Alarm Response Procedure for OHA A-7 & A-8)		

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	3.5	IF the fire is within the RCA, THEN <b>NOTIFY</b> the Radiation Protection Department (X-2644) to provide any needed support to the Fire Department	Marks step as N/A. Fire is outside the RCA.		
	3.6	<b>NOTIFY</b> Security (X-2648) of the fire location and to provide any needed support to the Fire Department	<b>CUE:</b> Security has been notified		
	3.7	<b>IMPLEMENT</b> Attachment 1, while continuing with this procedure. (Continuous Action Summary - Fire Department Support)	<b>CUE:</b> Extra NCO will implement Attachment 1, continue with procedure.		
	3.8	Is the fire in an area serviced by the Control Area Air Conditioning System OR Chiller Room?	Operator marks step as YES, the Relay Room is in the area serviced by CAACS and goes to Step 3.9.		
*	3.9	At 2RP2 Panel, <b>SELECT</b> "FIRE INSIDE CONTROL AREA"	<b>At 2RP2. Operator depresses the pushbutton for FIRE INSIDE CONTROL AREA</b>		
*	3.10	<b>DIRECT</b> Unit 1 NCO to <b>SELECT</b> "FIRE INSIDE CONTROL AREA"	<b>Operator directs Unit 1 to select FIRE INSIDE</b>  <b>CUE:</b> Unit 1 NCO will select FIRE INSIDE CONTROL AREA		
	3.11	<b>GO TO</b> Step 3.14	Operator goes to step 3.14		

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	3.14	<b>IMPLEMENT</b> S2.OP-SO.CAV-0001(Q), Control Area Ventilation Operation, for component alignment verification.	<b>CUE:</b> Extra NCO will perform S2.OP-SO.CAV-0001, continue on with procedure.		
	3.15	Is the fire located in either the 4KV or 460/230V Switchgear Room?	Operator marks step as NO, the fire is not in this area and goes to Step 3.18.		
	3.18	Is the fire located in either the Relay Room or Control Room Area?	Operator marks step as YES.		
	3.19	<b>ISOLATE</b> Pressurizer Power Operated Relief Valves (PORVs) for RCS inventory and pressure control:			
*	3.19.A	A. <b>SELECT</b> MANUAL AND CLOSE on the following PORVs: ___ 2PR1 ___ 2PR2	<b>Operator depresses MANUAL pushbutton for 2PR1 and 2PR2 on 2CC2 console.</b>  <b>Examiners Note:</b> 2PR1 and 2PR2 are normally closed during power operation.		
*	3.19.B	B. <b>CLOSE</b> the following PORV Block Valves: ___ 2PR6, STOP VALVE ___ 2PR7, STOP VALVE	<b>Operator depresses the CLOSE pushbutton for 2PR6 and 2PR7 on 2CC2 console.</b>		

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*	3.20	<b>DISPATCH</b> an Operator to align the PORV Block Valve circuits to EMERG CLOSE per Attachment 15, Section 1.0	<b>Operator dispatches operator to perform 3.20</b>  <u>CUE:</u> Operator will be dispatched to perform step 3.20.		
	3.21	<b>EVALUATE</b> implementation of S2.OP-AB.CR-0002(Q), Control Room Evacuation Due To Fire In Control Room, Relay Room, 460/230V Switchgear Room, or 4KV Switchgear Room	<u>CUE:</u> CRS will evaluate implementation of S2.OP-AB.CR-0002		
	3.22	<b>GO TO</b> Step 3.114	<u>CUE:</u> <b>JPM IS COMPLETE</b>		

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	CUE:	<p><u>WHEN</u> operator completes step 3.22, OR the JPM has been terminated for other reasons, <u>THEN RECORD</u> the STOP TIME.</p> <p><b>REPEAT BACK</b> any message from the operator on the status of the JPM, and then state “<b>This JPM is complete</b>”.</p> <p><b>STOP TIME:</b> _____</p>	<b>Terminate JPM once step 3.22 is complete.</b>		

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**JOB PERFORMANCE MEASURE VALIDATION CHECKLIST**

JPM#: 20-01 NRC Sim-h

**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. 12 Date 1-3-22
- RC 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.
- RC 11. When JPM is revalidated, SME or Instructor sign and date JPM cover page.

SME/Instructor:	R. Chan	Date:	1-10-22
SME/Instructor:	M. Protesto	Date:	1-10-22
SME/Instructor:	S. Pompper	Date:	1-10-22

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**INITIAL CONDITIONS:**

- ◆ 100% power.
- ◆ All systems are in Automatic and normal alignment

**INITIATING CUE:**

- ◆ You are the Reactor Operator.
- ◆ Respond to all alarms and indications