

OPERATOR TRAINING PROGRAM
JOB PERFORMANCE MEASURE

NOTE: This was the
only change to
Part b.

STATION: HOPE CREEK
SYSTEM: Safety & Turbine Auxiliaries Cooling
TASK: Respond To An Abnormal Release Of Gaseous Radioactivity/SACS
Pump Auto Start Failure
TASK NUMBER: 4000270401

JPM NUMBER: [SRO(U) B.1.b-RO B.1.f]

ALTERNATE PATH: ☒

K/A NUMBER: 400000A4.01

IMPORTANCE FACTOR: 3.1 3.0

APPLICABILITY:

RO

SRO

EO ☐

RO ☒

STA ☐

SRO ☒

EVALUATION SETTING/METHOD: Simulator/Perform

REFERENCES: HC.OP-SO.SM-0001(Q), Rev.: 12
HC.OP-SO.EG-0001(Q), Rev.: 27

TOOLS AND EQUIPMENT: None

VALIDATED JPM COMPLETION TIME: (16) Minutes

TIME PERIOD IDENTIFIED FOR TIME CRITICAL STEPS: N/A

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: N/A

JPM PERFORMED BY: _____ GRADE: ☐ SAT ☐ UNSAT

REASON, IF UNSATISFACTORY:

EVALUATOR'S SIGNATURE: _____ DATE: _____

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INITIAL CONDITIONS:

1. A Radiological Event has occurred on the Refuel Floor.
2. Refuel Floor Exhaust Ventilation Radiation Monitors are in ALERT and continuing to rise.
3. HC.OP-EO.ZZ-0103/104, Reactor Building and Rad Release Control, is being implemented.

INITIATING CUE:

When Refuel Floor Ventilation Exhaust radiation levels exceed $2.3E-3 \mu\text{Ci/ml}$, perform the Isolation Systems Automatic Initiation/Observation in accordance with HC.OP-SO.SM-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.

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# *	STEP NO.	STEP (*Denotes a Critical Step) (#Denotes a Sequential Step)	STANDARD	EVAL S/U	COMMENTS (Required for UNSAT evaluation)
		Operator obtains and locates procedure HC.OP-SO.SM-0001.	Operator obtains the correct procedure.		
		Operator reviews precautions and limitations.	Operator reviews precautions and limitations. Examiner Cue: If excessive time is taken to review precautions and limitations, inform operator that all are satisfied.		
		Operator determines beginning step of the procedure.	Operator determines correct beginning step of procedure to be 5.2.		
		START TIME: _____			
	5.2.1	Upon receipt <u>AND</u> validation of Isolation signal, OBSERVE the required actions for that particular isolation, have occurred IAW Table SM-001 through SM-020.	Operator determines that TABLE SM-019 applies REFUEL FLOOR EXHAUST RADIATION - HIGH and observes that the Group 19 Dampers have closed and other Actions have occurred for Equipment listed as specified. Examiner Cue: Respond as Equipment Operator to report status of GU-HD9395A, GU-HD9395B (closed), and Reactor Building Ventilation System (all fans secured) as required.		

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	5.2.2	IF all operations have not occurred, PERFORM required operations IAW applicable SOP.	Examiner Note: Operator notices that GU-BV206, FRVS VENT FAN B is not running. This fan is not required to be in service as long as GU-AV206, FRVS VENT FAN A is in operation. The operator may place the GU-BV206 in service in accordance with the applicable SOP. Operator notices that EG-BP210, SAFETY AUXILIARIES COOLING PUMP B has failed to automatically start by observing its START pushbutton flashing and determines to start the pump in accordance with HC.OP-SO.EG-0001.		
		<u>HC.OP-SO.EG-0001</u>			
		Operator obtains and locates procedure HC.OP-SO.EG-0001.	Operator obtains the correct procedure.		
		Operator reviews precautions and limitations.	Operator reviews precautions and limitations. Examiner Cue: If excessive time is taken to review precautions and limitations, inform operator that all are satisfied.		
		Operator determines beginning step of the procedure.	Operator determines correct beginning step of procedure to be 5.2.		

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	5.2	<u>Placing SACS in Service</u>	Examiner Note: There are numerous steps in this procedure, which provide guidance on starting a SACS pump. It is NOT critical to use this section of the procedure.		
	5.2.1	ENSURE all prerequisites of Section 2.2 are satisfied.	<p>Operator reviews prerequisites.</p> <p>Examiner Cue: If excessive time is taken to review the prerequisites, inform operator that all are satisfied.</p> <p>Operator determines steps that are not applicable and marks them as N/A.</p> <p>Examiner Cue: SRO approval is given for those steps marked as N/A.</p>		

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	5.2.3	PLACE SACS Loop A(B) in service as follows: A. PERFORM the following (10C651): 1. PLACE LOOP A(B) ISLN TACS CLG/HYDRO PNEU ACC AIR TACS INBD SPLY/RTN, HV2522A/HV2496A (HV2522B / HV2496B) in AUTO. 2. PLACE LOOP A(B) ISLN TACS CLG/HYDRO PNEU ACC AIR TACS OUTBD SPLY/RTN, HV2522C/HV2496C (HV2522D / HV2496D) in AUTO.	Operator observes that LOOP B ISLN TACS CLG/HYDRO PNEU ACC AIR TACS INBD SPLY/RTN, HV2522B / HV2496B are in AUTO Operator observes that LOOP B ISLN TACS CLG/HYDRO PNEU ACC AIR TACS OUTBD SPLY/RTN, HV2522D / HV2496D are in AUTO		
	5.2.3	B. PLACE SACS Loop A(B) in service as follows: 1. OBSERVE LOOP A(B) PUMP A(B) REMOTE push-button is OFF.	Operator observes that the REMOTE push-button is OFF for BP210.		
		2. PLACE LOOP A(B) PUMP A(B) in MAN control.	Operator depresses the BP210 MAN push button and observes that the MAN push button is illuminated and the AUTO push button is extinguished. Examiner Note: The pump will start if the START push button is pressed in AUTO or MAN control.		

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*		3. START LOOP A(B) PUMP A(B) AND PERFORM the following: a. OBSERVE that LOOP A(B) PUMP A(B) LOW DIFF PRESS light extinguishes.	Operator depresses the BP210 START push button and observes that the START push button is illuminated and the STOP push button is extinguished. Examiner Note: Pressing the START push button is critical.		
		b. IF EGHV-2491A(B), SACS LOOP A(B) HEAT EXCHANGER INLET ISOLATION VALVE, is closed, THEN OBSERVE that it auto opens.	Operator observes EGHV-2491B, SACS LOOP B HEAT EXCHANGER INLET ISOLATION VALVE, is open.		
		STOP TIME: _____			

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

JOB PERFORMANCE MEASURE SIMULATOR INSTRUCTIONS

Reset to IC-1.

Insert the following malfunctions.

MALFUNCTION SUMMARY:

Initial	Description	Delay	Ramp	Remote/Event	Init	Final
_____ 1.	RM9627 RFE VENT A RADIATION MONITOR		120		1.32 E-3	2.32 E-3
_____ 2.	RM9628 RFE VENT B RADIATION MONITOR		120		1.46 E-3	2.46 E-3
_____ 3.	RM9629 RFE VENT C RADIATION MONITOR		120		1.36 E-3	2.42 E-3
_____ 4.	CW25B BP210 SACS PUMP FAIL TO AUTO START					
_____ 5.						

Take the Simulator to RUN, acknowledge RM-11 alarms, and then place the Simulator in FREEZE. Keep the Simulator in Freeze until the operator has acknowledged the Initiating Cue.