FACILITY NAME: Turkey Point Section 5

REPORT NUMBER: 2009-302

DRAFT SIM/IN-PLANT JPMS

CONTENTS:

☑ **Draft SIMULATOR / IN-PLANT JPMs**

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Submitted By: Edwin Jaraj Verified By: Mark J. Riches

Facility:	Turkey Point	Task No:	24094001501
Task Title:	Place Unit 4 Post Accident Hydrogen Monitor In Service	JPM No:	NRC-25-IP-JPM-I
K/A Reference:	028 A2.02 (3.5/3.9)		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:	In Plant		
Simulated Performance	X		
Classroom		Simulator	Plant X

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. Unit 4 has experienced a valid Safety Injection signal.
2. All applicable prerequisites listed in Section 3.0 are satisfied.
3. Post Accident Hydrogen Monitoring system is in normal standby alignment.

Task Standard:

1. PAHMS Alignment Completed per Section 7.1 of 4-OP-094,"Containment Post-Accident Monitoring Systems."

Required Materials:

1. Two way radio (optional communications device)
2. 4-OP-094, "Containment Post-Accident Monitoring Systems"
3. "A" key
4. Valve Operating Handle (located in Aux Bldg E/W hallway)

General References:

1. 4-OP-094, "Containment Post-Accident Monitoring Systems"

Initiating Cue:

1. You have been directed by the RO to place the Post Accident Hydrogen Monitor in service in accordance with 4-OP-094, Section 7.1.

Time Critical Task: YES (30 min)

Validation Time: 15 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

N/A

Load Lesson

N/A

Ensure Simulator Operator Checklist is complete

N/A

Denote critical steps with a check mark(√)

Start Time _____

STEP 1 :	Obtain Required Materials	___ SAT ___ UNSAT
Standard:	1. Obtains a copy of 4-OP-094, Post Accident Monitoring System. 2. Verifies latest revision and no outstanding OTSCs. 3. Begins review of section: 7.1 Post Accident H_2 Monitor Startup.	
Cue	**Evaluator may choose to require the candidate to obtain procedure section.** **When the correct procedure is identified & verified, provide the operator with the procedure.**	
Comment		
NOTE:	**NOTE** *Hydrogen Monitors should be in service within 30 minutes of a valid SI signal.*	

STEP 2 :	**NOTE** *Hydrogen Monitors should be in service within 30 minutes of a valid SI signal.* 7.1.1 Initial Conditions ____ 1. All applicable prerequisites listed in Section 3.0 are satisfied.	____ SAT ____ UNSAT
Standard:	1. Reviews Note prior to step 7.1.1. Notes that the task must be completed within 30 minutes of the safety injection signal. 2. Determines prerequisites met from JPM Briefing Sheet Initial Conditions (thus procedure initial conditions complete).	
Cue	**N/A**	
Comment		
NOTE:		

STEP 3 : √	7.1.2 Procedure Steps **NOTES** • *Valves PASS-4-008, 4-001A, 4-001B, 4-002A and 4-002B are located in the floor at the junction of the north/south hallway.* • *Full travel for valves is provided in parenthesis and should not be exceeded or damage to reach rod assemblies may occur.* 1. Remove the floor caps **AND** open the following valves using the reach rods located in the Auxiliary Building. ____ a. Post Accident Sampling System Return Line Isolation Valve, PASS-4-008 (2 turns) ____ b. H_2 Analyzer 4A Outlet Isol, PAHM-4-001A (3 turns) ____ c. H_2 Analyzer Outlet Isol, PAHM-4-001B (6 turns) ____ d. PACV Vent and Sample System to PAHM Header Isolation Valve (RR), PAHM-4-002A (6 turns) ____ e. PACV Vent and Sample System to PAHM Header Isolation Valve (RR), PAHM-4-002B (6 turns)	____ SAT ____ UNSAT
Standard:	Proceeds to the Aux Bldg east-west hallway and describes how to unlock and obtain a T-handle tool from the rack. Simulates removing floor caps by engaging the T-handle tool into each cap and rotating them counter clockwise. Then simulates opening the following valves by engaging the T-handle tool to the valve operator and turning the operator the specified number of turns counter clockwise: a. PASS-4-008 (2 turns). b. PAHM-4-001A (3 turns). c. PAHM-4-001B (6 turns). d. PAHM-4-002A (6 turns). e. PAHM-4-002B (6 turns).	
Cue	**For each of the valves listed above, when applicant correctly identifies how to remove floor cap, state, "The floor cap is removed."** **When applicant correctly demonstrates how to operate valve in the open direction, state, "The valve operator has been rotated the applicable number of turns".**	
Comment		
NOTE:	**NOTES** • Valves PASS-4-008, 4-001A, 4-001B, 4-002A and 4-002B are located in the floor at the junction of the north/south hallway. • Full travel for valves is provided in parenthesis and should not be exceeded or damage to reach rod assemblies may occur.	

STEP 4 : √	7.1.2 (Cont'd) ____ 2. Unlock and open PACVS Isol Vlv Penet 51, HV-4-3, outside the Unit 4 Pipe and Valve Room. (An **A** key is required for this lock.)	____ SAT ____ UNSAT
Standard:	Removes lock from HV-4-3 remote operator handwheel (South end of Aux Bldg 18' elevation N/S hallway outside U4 P&V Room) using an A key, then opens valve using remote operator handwheel.	
Cue	**When candidate simulates turning valve handwheel counterclockwise, point to open indicator to show valve is open.**	
Comment		
NOTE:	Although not specified in the procedure, candidate may reinstall lock on valve. This is not required for this JPM.	

STEP 6 :	Request the Unit 4 RO perform step 7.1.2.4	___ SAT ___ UNSAT
Standard:	Simulates request for Unit 4 RO to perform step 7.1.2.4 of 4-OP-094	
Cue	**1. As Unit 4 RO acknowledge request to perform step 7.1.2.4 of 4-OP-094 (Control Room Portion)** **2. As Unit 4 RO, tell candidate step 7.1.2.4 has been completed. Direct candidate to continue with step 7.1.2.5.**	
Comment		
NOTE:	*Candidate may attempt to use a communication device or simulate communication directly to the evaluator.*	

STEP 7 : √	____ 5. At the area outside the Unit 3 BA Evap Room, remove floor cap **AND** close WHT Waste Transfer Pump Discharge to Rad Waste Building, MPAS-001,(1/4 turn). **OR** ____ At the Waste Evaporator Feed Pump Room in the Radwaste Bldg, close Aux Bldg WHT valve to Radwaste Bldg WHT, 1731.	____ SAT ____ UNSAT
Standard:	1. Attempts to remove the floor cap for MPAS-001. 2. When MPAS-001 floor cap determined to be jammed in place, leaves the Aux Building and proceeds to the Waste Evaporator Feed Pump room in the Radwaste Building. 3. Closes valve 1731 (Rotates handwheel fully clockwise until the valve stem is fully inserted.)	
Cue	**1. When candidate attempts to remove MPAS-001 floor cap, state that it is jammed and cannot be removed** **2. When candidate identifies 1731 handwheel has been rotated fully clockwise and valve stem inserted, confirm this indication.**	
Comment		
NOTE:		

STEP 8 : √	**NOTE** *The following valves are located on the Auxiliary Building roof near the Unit 4 containment wall.* 6. Perform the following: ____ a. Unlock and open Isol Vlv from WHT Pp Back, MPAS-4-004 (an **A** key is required).	____ SAT ____ UNSAT
Standard:	1. Proceeds to Auxiliary Building roof near Unit 4 Containment wall. 2. Unlocks MPAS-4-004 handwheel with an A key, then opens valve. (Rotates handwheel fully counterclockwise until valve stem fully withdrawn.)	
Cue	**When candidate identifies handwheel has been rotated fully counterclockwise and valve stem withdrawn, confirm this indication**	
Comment		
NOTE:	*Although not specified in the procedure, candidate may reinstall lock on valve.*	

STEP 9 : √	____ b. Close Isol Vlv MPAS to Purge Air Rtn, MPAS-4-005.	___ SAT ___ UNSAT
Standard:	Simulates Closing MPAS-4-005. (Rotates handwheel fully clockwise until the valve stem is fully inserted.)	
Cue	**1. When candidate identifies handwheel has been rotated fully clockwise and valve stem inserted, confirm that valve travel has stopped and stem is inserted.** **2. Tell candidate another operator will perform step 7.1.2.7**	
Comment		
NOTE:		

Termination Cue:	**Operator returns JPM briefing sheet when informed step 7.1.2.7 will be performed by another operator.**	**STOP**

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-IP-JPM-I

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

_____

_____

Response:

_____

_____

_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

INITIAL CONDITIONS:

1. Unit 4 has experienced a valid Safety Injection signal.
2. All applicable procedure prerequisites are satisfied.
3. Post Accident Hydrogen Monitoring system is in **NORMAL STANDBY ALIGNMENT**.

INITIATING CUE:

You are the Primary Operator and you have been directed by the Unit 4 RO to place the Post Accident Hydrogen Monitor in service per 4-OP-094 section 7.1.

This is a Simulate JPM. No plant equipment is to be manipulated during the performance of this task.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1

Facility:	Turkey Point	Task No:	
Task Title:	TRIP and RESET AFW Pump "A" T&T Valve, MOV-6459A	JPM No:	NRC-25-IP-JPM-J
K/A Reference:	061-K4.07 Turbine trip, including overspeed 3.1/3.3		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:			
Simulated Performance	X	Actual Performance	
Classroom		Simulator	Plant X

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. 3-OP-075, Auxiliary Feedwater System, Section 7.8, Auxiliary Feedwater Pump A Manual Start is in progress.
2. 3-OP-075, Auxiliary Feedwater System has been completed up to Section 7.8.7 by another NPO.
3. The Unit 3 Unit Supervisor has directed the NPO to perform steps 7.8.8 through 7.8.10 of 3-OP-075, Auxiliary Feedwater System.

Task Standard:

- AFW Pump "A" T&T Valve, MOV-6459A, is TRIPPED.in accordance with 3-OP-075, Auxiliary Feedwater System, Section 7.8.
- AFW Pump "A" T&T Valve, MOV-6459A is RESET, in accordance with 3-OP-075, Auxiliary Feedwater System, Section 7.8.

Required Materials:
- Applicable Personal Protective Equipment
- 3-OP-075, Auxiliary Feedwater System

General References:
- 3-OP-075, Auxiliary Feedwater System

Initiating Cue: You have been directed to perform steps 7.8.8 through 7.8.10 of 3-OP-075, Auxiliary Feedwater System to TRIP and RESET AFW Pump "A" T&T Valve, MOV-6459A.

Time Critical Task: No

Validation Time: 15 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

N/A

Load Lesson

N/A

Ensure Simulator Operator Checklist is complete

N/A

Denote critical steps with a check mark(√)

Start Time _____

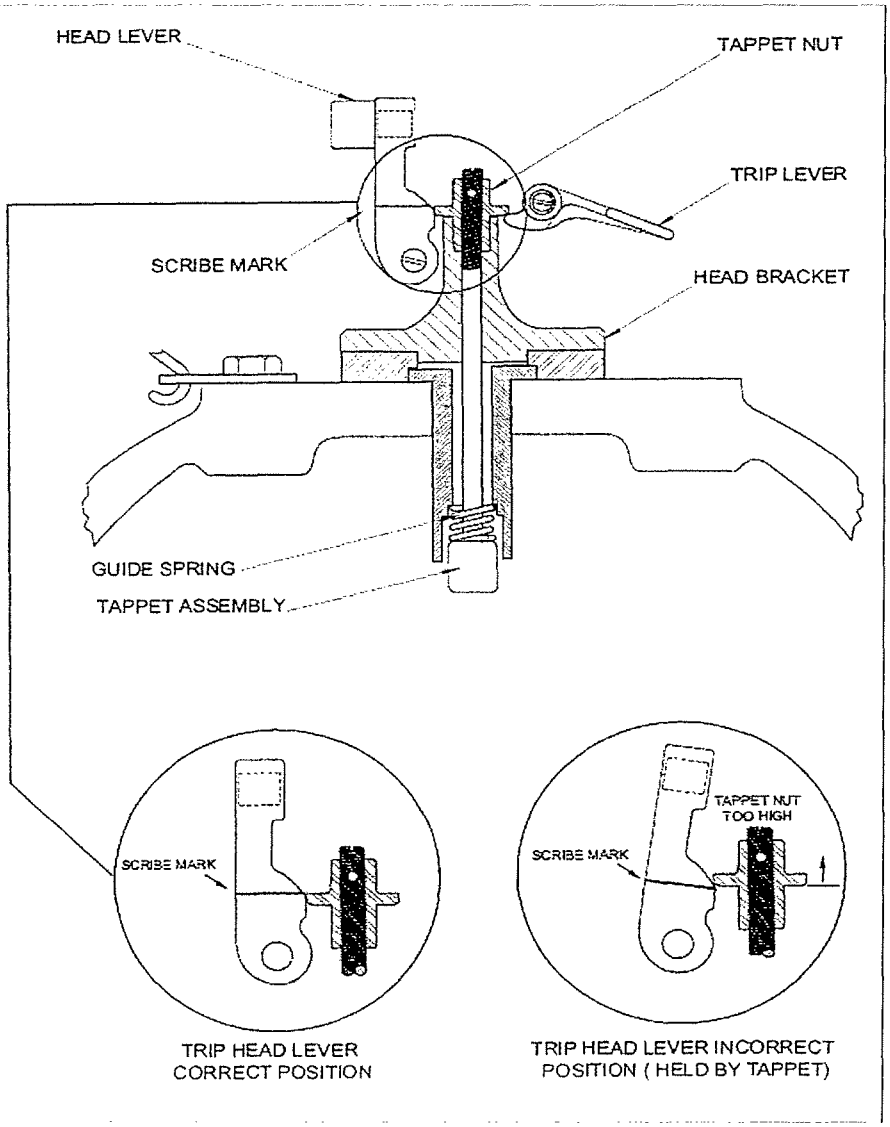
STEP 1 : √	Trip AFW Pump **A** T&T Valve, MOV-6459A.	___ SAT ___ UNSAT
Standard:	7.8.8 Push the mechanical trip button for the AFW Pump **A** T&T Valve, MOV-6459A	
Cue	Once NPO identifies Mechanical Trip Button and simulates depressing the button, confirm Trip Button has been depressed.	
Comment		
NOTE:		

STEP 2 :	NPO verifies AFW Pump **A** T&T Valve, MOV-6459A, is closed.	___ SAT ___ UNSAT
Standard:	then verify the following: 1. AFW Pump **A** T&T Valve, MOV-6459A, is closed. 2. Control Room mechanical trip light is ON.	
Cue	1. If operator verifies MOV-6459A CLOSED by valve stem moving downward and stopping, confirm CLOSED. 2. When NPO simulates contacting Control Room confirm that Control Room mechanical trip light is On and valve indicates CLOSED.	
Comment		
NOTE:	Evaluator may act as Control Room Operator to simulate communications.	

STEP 3 :	NPO confirms Local Test Panel Mechanical Trip Light is on.	___ SAT ___ UNSAT
Standard:	Local Test Panel mechanical trip light is On.	
Cue	When NPO identifies Local Test Panel mechanical trip light tell the NPO that the RED light is OFF and the GREEN light is on.	
Comment		
NOTE:	Local Test Panel Mechanical Trip Light is AMBER.	

STEP 4 : √	Reset AFW Pump **A** T&T Valve, MOV-6459A	___ SAT ___ UNSAT
Standard:	**CAUTION** ***When releasing the mechanical trip rod, ensure the rod does not snap back towards the turbine. This could damage the turbine overspeed tappet shaft.*** 7.8.9 Reset AFW Pump **A** T&T Valve, MOV-6459A, by pulling the mechanical trip rod approximately one inch.	
Cue	When NPO describes operating mechanical trip rod tell operator that the mechanical trip rod will travel no further and does not snap back to the tripped position.	
Comment		

NOTE:


HEAD LEVER
TAPPET NUT
TRIP LEVER
SCRIBE MARK
HEAD BRACKET
GUIDE SPRING
TAPPET ASSEMBLY
SCRIBE MARK
TAPPET NUT TOO HIGH
SCRIBE MARK
TRIP HEAD LEVER CORRECT POSITION
TRIP HEAD LEVER INCORRECT POSITION (HELD BY TAPPET)

STEP 5 :	Verify the limit switch arm roller is properly positioned.	___ SAT ___ UNSAT
Standard:	7.8.10 Verify the limit switch arm roller is on the North side of the roller plate **AND** the tappet nut is contacting the head lever below the scribe mark.	
Cue	When operator describes the correct standard, confirm that the limit switch arm roller is properly positioned.	
Comment		
NOTE:		

Terminating Cue:	**The task is complete when the Examinee returns the cue sheet to the examiner.**	**STOP**

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-IP-JPM-J

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

_____

_____

Response:

_____

_____

_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

INITIAL CONDITIONS:

1. 3-OP-075, Auxiliary Feedwater System, Section 7.8, Auxiliary Feedwater Pump A Manual Start is in progress.

2. 3-OP-075, Auxiliary Feedwater System has been completed up to Section 7.8.7 by another NPO.

3. The Unit 3 Unit Supervisor has directed the NPO to perform steps 7.8.8 through 7.8.10 of 3-OP-075, Auxiliary Feedwater System.

INITIATING CUE:

You have been directed to perform steps 7.8.8 through 7.8.10 of 3-OP-075, Auxiliary Feedwater System to TRIP and RESET AFW Pump "A" T&T Valve, MOV-6459A.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Transfer Vital Loads Between Inverters	Job Performance Measure No:	NRC-25-IP-JPM-K
K/A Reference:	062-A4.04 (2.6/2.7)		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:	In Plant		
Simulated Performance	X	Actual Performance	
Classroom		Simulator	Plant X

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. 3B Inverter is Supplying Load, 4B Inverter is Supplying Load, and B SPARE Inverter is in STANDBY.
2. All initial conditions in 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM, specifically Sections 3.0 and 5.1, have been verified satisfactorily and complete.

Task Standard:

1. Transfer load to the correct inverter.

Required Materials:

1. 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM (12/08)

General References:

1. 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM (12/08)

Initiating Cue:

In preparation for inverter maintenance, you have been directed by the Unit 4 RO to transfer 4P08 bus load from the 4B (4Y02) Inverter to the B SPARE (4Y04) Inverter in accordance with 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM, Section 7.1.

Time Critical Task: No

Validation Time: 18 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

N/A

Load Lesson

N/A

Ensure Simulator Operator Checklist is complete

N/A

INSTRUCTIONS TO OPERATOR

HAND JPM BRIEFING SHEET TO OPERATOR AT THIS TIME!

INITIAL CONDITIONS:

1. Two inverters in service, B SPARE (4Y04) in standby and 4B (4Y02) supplying load.
2. All initial conditions in 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM, specifically Sections 3.0 and 5.1, have been verified satisfactorily and complete.

INITIATING CUE:

In preparation for inverter maintenance, you have been directed by the Unit 4 RO to transfer 4P08 bus load from the 4B (4Y02) Inverter to the B SPARE (4Y04) Inverter.

TERMINATION CUE:

When you feel that you have satisfactorily completed the assigned task, hand your JPM Briefing Sheet back to me.

Do you have any questions?

You may begin.

NOTES TO EVALUATOR:

1. Two inverters in service, B SPARE (4Y04) in standby and 4B (4Y02) supplying load.
2. All initial conditions in 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM, specifically Sections 3.0 and 5.1, have been verified satisfactorily and complete.

NOTE: This is a SIMULATE JPM. Tell candidate that NO plant equipment is to be manipulated during the performance of this task.

Denote critical steps with a check mark (√)

Start Time _____

STEP 1 :	7.0 **INFREQUENT OPERATIONS** 7.1 Transfer of Bus Load from Normal to Spare Inverter (Normal Transfer) INIT Transfer from Inverter_____ Date/Time Started:_____/_____ 7.1.1 Initial Conditions ____ 1. All applicable prerequisites listed in Section 3.0 are satisfied. ____ 2. The applicable Spare Inverter is in Standby in accordance with Subsection 5.1 of this procedure.	____ SAT ____ UNSAT
STANDARD:	1.Obtains copy of 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM. 2.Verifies procedure is current with no outstanding OTSCs.	
CUES:	*1. Provide copy of procedure once operator has located & verified 0-OP-003.3, or require candidate to obtain procedure.* *2. Inform operator that Sections 3.0 and 5.1 conditions have been met.* *3.* Candidate should proceed to Control Room, ask permission to enter and go to the Inverter Room. ***Once candidate has identified need to go to the Control Room tell the candidate to insure that the specific task to be performed is not relayed to Control Room personnel.***	
Comment		
NOTE:	**NOTE** *Enclosure 1 provides a reference for Typical Normal Vital AC Inverter Switch Location, or* *Enclosure 2 provides a reference for Typical Spare Vital AC Inverter Switch Location as applicable.*	

STEP 2 : ↓	(procedure step 7.1.2.1) ____ 1. Place the Alternate Source Transfer Switch to the position indicated in Table 2.	____ SAT ____ UNSAT

TABLE 2

When Substituting SPARE INVERTER	For INSERVICE NORMAL INVERTER	Place ALTERNATE SOURCE TRANSFER SWITCH	To Position (LOCKED)	INIT
AS (3Y04)	3A (3Y01)	3Y01B	BACKUP TO SPARE INVERTER (3Y04) AS	
AS (3Y04)	4A (4Y01)	4Y01B	BACKUP TO SPARE INVERTER (3Y04) AS	
BS (4Y04)	3B (3Y02)	3Y02B	BACKUP TO SPARE INVERTER (4Y04) BS	
BS (4Y04)	4B (4Y02)	4Y02B	BACKUP TO SPARE INVERTER (4Y04) BS	
CS (3Y06)	3C (3Y05)	3Y05B	BACKUP TO SPARE INVERTER (3Y06) CS	
CS (3Y06)	4C (4Y05)	4Y05B	BACKUP TO SPARE INVERTER (3Y06) CS	
DS (4Y06)	3D (3Y07)	3Y07B	BACKUP TO SPARE INVERTER (4Y06) DS	
DS (4Y06)	4D (4Y07)	4Y07B	BACKUP TO SPARE INVERTER (4Y06) DS	

STANDARD:	1. Selects correct switch (4Y02B) and unlocks operating handle. 2. Repositions switch 4Y02B to BACKUP TO SPARE INVERTER (4Y04) BS and re-installs lock.	
CUES:	*1. Once candidate locates switch, correctly describes how to remove lock from operating handle and simulates repositioning switch handle, confirm these operations.* *2. When candidate correctly describes how to re-install lock on switch handle, confirm this operation.*	
Comment		
NOTE:		

STEP 3 : ↓	***DO NOT ALLOW THE BS INVERTER DOOR TO BE OPENED*** (procedure step 7.1.2.2) ____ 2. Place the Sync Reference Selector Switch (SW-2) inside the applicable SPARE inverter to NORMAL (DOWN) position.	___ SAT ___ UNSAT
STANDARD:	1. Operator identifies the B SPARE (4Y04) inverter. 2. Simulates positioning switch SW-2 to NORMAL (DOWN) position.	
CUE:	*1. When candidate identifies* B SPARE (4Y04)*inverter and states that the switch is inside the inverter requiring door opening to operate, tell the operator to simulate going inside the inverter to position the switch.* *2. When SW-2 operation properly described, confirm re-positioning.*	
Comment		
NOTE:	***DO NOT ALLOW THE BS INVERTER DOOR TO BE OPENED***	

STEP 4 :	(procedure step 7.1.2.3) 3. Verify the following at the SPARE inverter: ____ a. The IN SYNC light is ON. ____ b. The ALT SOURCE AVAIL light is ON. ____ c. The SYNC REFERENCE NORMAL light is ON.	____ SAT ____ UNSAT
STANDARD:	Determines the B SPARE (4Y04) inverter lights listed above are all ON.	
CUE:	When each light properly identified, state light is ON.	
Comment		
NOTE:		

STEP 5 : √	***DO NOT ALLOW THE 4B(4Y02) INVERTER DOOR TO BE OPENED*** (procedure step 7.1.2.4) ____ 4. Place the Sync Reference Selector Switch (SW-2) inside the applicable INSERVICE NORMAL inverter to the EXTERNAL (UP) position	___ SAT ___ UNSAT
STANDARD:	1. Operator identifies 4B (4Y02) inverter. 2. Simulates positioning switch SW-2 to EXTERNAL (UP) position.	
CUE:	*1. When candidate identifies* 4B (4Y02)*inverter and states that the switch is inside the inverter requiring door opening to operate, tell the operator to simulate going inside the inverter to position the switch.* *2. When SW-2 operation properly described, confirm re-positioning.*	
Comment		
NOTE:	***DO NOT ALLOW THE 4B(4Y02) INVERTER DOOR TO BE OPENED***	

STEP 6 :	(procedure step 7.1.2.5) 5. Verify the following at the INSERVICE NORMAL inverter: ____ a. The IN SYNC Light is ON. ____ b. The SYNC REFERENCE EXTERNAL light is ON.	____ SAT ____ UNSAT
STANDARD:	Determines the 4B (4Y02)inverter lights listed above are all ON.	
CUE:	When each light properly identified, state light is ON.	
Comment:		
NOTE:		

STEP 7 : √	(procedure step 7.1.2.6) ____ 6. Using Table 3, determine which Instrument AC Selector Switch should be used **AND** record: _____	___ SAT ___ UNSAT

TABLE 3

When Substituting SPARE INVERTER	For INSERVICE NORMAL INVERTER	Place INSTRUMENT AC SELECTOR SWITCH	To SUPPLY Position	INITIALS
AS (3Y04)	3A (3Y01)	3P07A	AC LINE	
AS (3Y04)	4A (4Y01)	4P07A	AC LINE	
BS (4Y04)	3B (3Y02)	3P08A	AC LINE	
BS (4Y04)	4B (4Y02)	4P08A	AC LINE	
CS (3Y06)	3C (3Y05)	3P06A	AC LINE	
CS (3Y06)	4C (4Y05)	4P06A	AC LINE	
DS (4Y06)	3D (3Y07)	3P09A	AC LINE	
DS (4Y06)	4D (4Y07)	4P09A	AC LINE	

STANDARD:	Using Table 3, identifies 4P08A as the correct Selector Switch to use.	
CUE:	N/A	
Comment		
NOTE:		

STEP 8 :	(procedure step 7.1.2.7.a) 7. Perform the following steps at the appropriate Instrument AC Selector Switch panel in the Cable Spreading Room: ____ a. Verify that the Alternate Power Available light is ON.	____ SAT ____ UNSAT
STANDARD:	Verifies 4P08A alternate power available light ON	
CUE:	*When* 4P08A *alternate power available light correctly identified, tell candidate that light is ON.*	
Comment		
NOTE:		

STEP 9 :	(procedure step 7.1.2.7.b) b. Test the Sync Verification Light as follows: ____ (1) Position the Sync Switch to SYNCH LAMP TEST. ____ (2) Verify lamp comes ON.	___ SAT ___ UNSAT
STANDARD:	1. Positions 4P08A SYNC switch to SYNCH LAMP TEST. 2. Verifies 4P08A SYNC Verification Light ON.	
CUE:	*1. When SYNC switch identified and operation correctly described, confirm switch manipulation.* *2. When Sync Verification Light correctly identified, tell candidate light is ON.*	
Comment		
NOTE:		

STEP 10 :	(procedure step 7.1.2.7.c) **NOTE** *In the following Substeps 7.1.2.7.c.(1) and 7.1.2.7.c.(2) the bright light will go OFF, but a slight glow is expected. This is acceptable.* c. Perform a synch check as follows: ____ (1) Position the Sync Switch to SYNCH CHECK PUSH. ____ (2) Depress and hold the Sync Switch. ____ (3) Verify that the Sync Verification Light stays OFF.	___ SAT ___ UNSAT
STANDARD:	1. Positions 4P08A SYNC Switch to SYNCH CHECK PUSH. 2. Depresses & holds 4P08A SYNC Switch. 3. Verifies 4P08A Sync Verification Light stays OFF. 4. Releases 4P08A SYNC Switch.	
CUE:	*1. When SYNC switch identified and operation correctly described, confirm switch manipulations.* *2. When Sync Verification Light correctly identified, tell candidate light is OFF.*	
Comment		
NOTE:	**NOTE** *In the following Substeps 7.1.2.7.c.(1) and 7.1.2.7.c.(2) the bright light will go OFF, but a slight glow is expected. This is acceptable.*	

STEP 11 : ↓	____ d. Place the Instrument AC Selector Switch to the position indicated in Table 3. **NOTE** *Initials should be entered for the applicable inverter. **N/A** should be entered for all others.*	____ SAT ____ UNSAT

TABLE 3

When Substituting SPARE INVERTER	For INSERVICE NORMAL INVERTER	Place INSTRUMENT AC SELECTOR SWITCH	To SUPPLY Position	INITIALS
A5 (3Y04)	3A (3Y01)	3P07A	AC LINE	
A5 (3Y04)	4A (4Y01)	4P07A	AC LINE	
B5 (4Y04)	3B (3Y02)	3P08A	AC LINE	
B5 (4Y04)	4B (4Y02)	4P08A	AC LINE	
C5 (3Y06)	3C (3Y05)	3P06A	AC LINE	
C5 (3Y06)	4C (4Y05)	4P06A	AC LINE	
D5 (4Y06)	3D (3Y07)	3P09A	AC LINE	
D5 (4Y06)	4D (4Y07)	4P09A	AC LINE	

STANDARD:	1. Selects correct switch (4P08A). 2. Positions 4P08A Instrument AC Selector Switch to AC LINE.	
CUE:	*When* 4P08A *Instrument AC Selector Switch identified and operation correctly described, confirm switch manipulation.*	
Comment		
NOTE:	**NOTE** *Initials should be entered for the applicable inverter. **N/A** should be entered for all others.* *Tell candidate that another operator will continue with step 7.1.2.8*	
Terminating Cue:	*The task is complete when the Examinee returns the cue sheet to the examiner.*	STOP

Verification of Completion

Job Performance Measure No. NRC-25-IP-JPM-K

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

_____

_____

Response:

_____

_____

_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

THIS IS A SIMULATED PLANT JPM. DO NOT OPERATE ANY PLANT EQUIPMENT.

Initial Conditions:

1. 3B Inverter is Supplying Load, 4B Inverter is Supplying Load, and B SPARE Inverter is in STANDBY.
2. All initial conditions in 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM, specifically Sections 3.0 and 5.1, have been verified satisfactorily and complete.

INITIATING CUE:

In preparation for inverter maintenance, you have been directed by the Unit 4 RO to transfer 4P08 bus load from the 4B (4Y02) Inverter to the B SPARE (4Y04) Inverter in accordance with 0-OP-003.3, 120V VITAL INSTRUMENT AC SYSTEM, Section 7.1.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Respond to Turbine Runback, Rods Fail to Insert	JPM No:	NRC-25-SIM-JPM-A
K/A Reference:	045 K4.12 Automatic turbine runback 3.3/3.6		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:			
Simulated Performance		Actual Performance	X
Classroom		Simulator X	Plant

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
- Unit 3 is operating at 60% power and stable
- Unit 3 is preparing to return to 100% power.
- No equipment is out of service.

Task Standard:
- 3-ONOP-089, Turbine Runback actions have been performed correctly.
- Tavg/Tref within 4°F in accordance with 0-ONOP-089, Turbine Runback (Match Tavg-Tref), 0-ADM-211, Emergency and Off-Normal Operating Procedure Usage (Tavg-Tref within 4° F during a transient)
-

Required Materials:
- 0-ONOP-089, Turbine Runback
- 0-ADM-211, Emergency and Off-Normal Operating Procedure Usage

General References:
- 0-ADM-211, Emergency and Off-Normal Operating Procedure Usage
- 0-ONOP-089, Turbine Runback

Initiating Cue:

- You have been directed to Respond to Plant Conditions

Time Critical Task: No

Validation Time: 10 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

16

Instructor Facility Operator Actions

1. Verify Reset to IC 24
2. Schema » Reactor » Rod Control/Rod Position » SC408 Rod Motion Failures & Controls » TFL10101:L1-SC408 Rods Fail to Move Auto » TRUE » INSERT
3. Verify RED SQUARE framing SC408.
4. Schema » Feedwater » F/W Main » Condensate Polishing Demineralizers » Feedwater Pumps » 3P1B (B Feedwater Pump) » TVFABP1B:FA-3P1B Bearing » Selected 1.0 » Pending » Verify ORANGE SQUARE framing 3P1B.

Ensure Simulator Operator Checklist is complete

Instructor Facility Operator Actions (Cont.)

5. Go to RUN.
6. Go to SUMMARY » PENDING » Right click on TVFABP1B » TRIGGER

Denote critical steps with a check mark()

Start Time _____

STEP 1 :	Recognition by Operator that Turbine Runback is occurring.	___SAT ___UNSAT
Standard:	Operator recognizes the Turbine Runback and identifies the need to respond in accordance with 3-ONOP-089, Turbine Runback.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may identify that 3B Feedwater Pump is degrading and trip the 3B Feedwater Pump.*	

STEP 2 : √	4.0 **IMMEDIATE OPERATOR ACTIONS** 4.1 Verify the automatic actions listed in Section 3.0 are functioning to stabilize and maintain plant conditions, or assume manual control.	___SAT ___UNSAT
Standard:	Used 3-ONOP-089, Turbine Runback to verify Immediate Operator Actions have been completed.	
Cue	1. Provided by Simulator response. 2. Terminate JPM after Operator matches Tavg-Tref within 4° F.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 3 :	3.1 Main Turbine Control Valves and the Reheat Intercept Valves modulate closed upon receipt of a runback signal from the Generator Governor/Speed Changer.	___SAT ___UNSAT
Standard:	Verified Main Turbine Control Valves and the Reheat Intercept Valves modulate closed	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 4 :	3.2 Steam Dump Valves arm and open to relieve excess steam to the condenser due to the load rejection and subsequent Tavg/Tref mismatch.	___SAT ___UNSAT
Standard:	Verified Steam Dump Valves are armed and opened if needed.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 5 :	3.3 Automatic Rod Insertion Control adjusts core reactivity to match Tavg with Tref.	___SAT ___UNSAT
Standard:	Operator recognizes that Control Rods did not insert as required and inserts Control Rods to match Tavg within 4 degrees F.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 6 : √	Operator places Rod Control Selector Switch to MANUAL.	___SAT ___UNSAT
Standard:	Operator placed Rod Control Selector Switch to MANUAL.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 7 : √	Insertion Control Rods to adjusts core reactivity to match Tavg with Tref.	___SAT ___UNSAT
Standard:	Operator places IN-HOLD-OUT Switch to IN to insert Control Rods to match Tavg with Tref within 4 □ F.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 8 : √	Tavg and Tref are matched.	___SAT UNS ___AT
Standard:	Tavg and Tref are within 4°F.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 9 :	3.4 Verifies Main Feedwater Control Valves open or close in programmed response to steamflow/feedflow mismatch and level input signals, to maintain steam generator levels at program.	___SAT ___UNSAT
Standard:	Verified that Main Feedwater Control Valves responded properly to steamflow/feedflow mismatch and level input signals, to maintain steam generator levels at program.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 10 :	3.5 Verify Pressurizer Level Controller and Pressurizer Pressure Controller vary charging pumps speed and Heater/Spray actuation to maintain the programmed level and pressure, as required for the changing values of Tavg.	___SAT ___UNSAT
Standard:	Verifies that Pressurizer Level Controller and Pressurizer Pressure Controller maintaining the programmed level and pressure, as required for the changing values of Tavg.	
Cue	Provided by Simulator response.	
Comment		
NOTE:	*Operator may choose at any time to address the lack of Control Rod insertion and take manual action in accordance with Elements 6,7,and 8.* *Operator may choose to review all Automatic Actions prior to addressing lack of Control Rod insertion.* *Inserting rods to match Tavg and Tref may be delayed until the subsequent actions after verifying Automatic Actions w/3-ONOP-089.*	

STEP 11 : √	**SUBSEQUENT OPERATOR ACTIONS** 5.1 Determine the cause of the runback initiation **AND** refer to the appropriate ONOP for specific recovery instructions. 5.2 Verify the following conditions: 5.2.1 Steam generator levels and pressures stabilized. 5.2.2 Steam dumps closed. 5.2.3 Tavg matches Tref. 5.2.4 Pressurizer levels and pressures stabilized.	___SAT ___UNSAT
Standard:	5.2 Verify the following conditions: 5.2.1 Steam generator levels and pressures stabilized. 5.2.2 Steam dumps closed. **5.2.3 Tavg matches Tref within 4° F.** 5.2.4 Pressurizer levels and pressures stabilized.	
Cue	Terminate JPM after Operator matches Tavg-Tref within 4° F.	
Comment		
NOTE:	Critical Step: **5.2.3 Tavg matches Tref within 4° F.**	
Terminating Cue:	**The task is complete when the Examinee returns the cue sheet to the examiner.**	**STOP**

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-A

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

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_____

Response:

_____

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_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

INITIAL CONDITIONS:

- Unit 3 is operating at 60% power and stable
- Unit 3 is preparing to return to 100% power.
- No equipment is out of service.

INITIATING CUE:

You have been directed to respond to plant conditions.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Pressurizer Level Control Channel Fails Low	JPM No:	NRC-25-SIM-JPM-B
K/A Reference:	APE 028 AA2.01 PZR level indicators and alarms 3.4 /3.6		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:			
Simulated Performance		Actual Performance	X
Classroom		Simulator	~~X~~
Plant			

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
- Unit 3 is at 100% and stable
- No equipment is out of service

Task Standard:
- Unit 3 is at 100% and stable.
- Pressurizer level stable and returning to programmed level.
- Letdown has been returned to service.

Required Materials:
- 3-ONOP-041.6, Pressurizer Level Control Malfunction

General References:
- 3-ONOP-041.6, Pressurizer Level Control Malfunction

Initiating Cue:

- You have been directed to respond to plant conditions.

Time Critical Task: No

Validation Time: XX minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

IC-1: 100% Power MOL

Ensure Simulator Operator Checklist is complete

Simulator Operator Instructions

1. Verify IC-1
2. Place Simulator to RUN
3. Schema » Reactor Coolant System » Pressurizer » L-459 » LT-459 » TFH1TV59:H1-LT-459 Transmitter Fail Low » TRUE » INSERT

Denote critical steps with a check mark(√)

Start Time _____

STEP 1 :	Respond to Pressurizer Level Control Channel 459 fails low.	___ SAT ___ UNSAT
Standard:	• Operator refers to 3-ONOP-041.6 Pressurizer Level Control Malfunction.	
Cue		
Comment		
NOTE:	*Operator may choose to refer to ARP prior to entering ONOP.*	

STEP 2 :	Verify automatic actions occur.	___ SAT ___ UNSAT
Standard:	Operator verifies the following: 1. High Pressure LTDN Isolation Valve LCV-3-460 CLOSES. 2. LTDN Orifice Isolation Valves, CV-3-200A, CV-3-200B **AND** CV-3-200C CLOSE. 3. All Pressurizer Heaters turn OFF. 4. Charging flow INCREASES.	
Cue		
Comment		
NOTE:		

STEP 3 :	Check pressurizer level indicators LI-3-459A, LI-3-460 **AND** LI-3-461,	___ SAT ___ UNSAT
Standard:	Identifies Channel 459 as failed low.	
Cue		
Comment		
NOTE:		

STEP 4 : √	Place CHANNEL SELECT PRESSURIZER LEVEL CONTROL switch in position 2 or 3.	___ SAT ___ UNSAT
Standard:	Places CHANNEL SELECT PRESSURIZER LEVEL CONTROL switch in position 2 or 3.	
Cue		
Comment		
NOTE:		

STEP 5 : √	Place MASTER CHARGING PUMP CONTROLLER, LC-3-459G in MANUAL.	___ SAT ___ UNSAT
Standard:	1. Placed MASTER CHARGING PUMP CONTROLLER, LC-3-459G in MANUAL 2. Maintain programmed level per Enclosure 1.	
Cue		
Comment		
NOTE:		

STEP 6 :	**IF** LR-3-459 is selected to a defective channel, **THEN** place CHANNEL SELECT PRESSURIZER LEVEL RECORDER in another position.	___ SAT ___ UNSAT
Standard:	Placed CHANNEL SELECT PRESSURIZER LEVEL RECORDER in position other than Channel 459.	
Cue		
Comment		
NOTE:		

STEP 6 : √	Re-establish Letdown flow	___ SAT ___ UNSAT
Standard:	1. Throttle Low Pressure LTDN Controller, PCV-3-145, as necessary to prevent LTDN relief valve from lifting, (approximately 50 percent open). 2. Manually control Low Pressure Letdown Control Valve, PCV-3-145, to limit pressure spike. 3. OPEN High Pressure L/D Isol Vlv from Loop B Cold Leg LCV-3-460. 4. OPEN L/D Isolation Valves, CV-3-200 A, B **OR** C as required to restore pressurizer level to programmed level. 5. Return Lower Pressure Letdown Control Valve, PCV-3-145 to automatic.	
Cue	Tell operator that another operator will perform the remainder of the procedure.	
Comment		
NOTE:	*Steps 1,2,and 5 are not critical steps.*	
Terminating Cue:	**The task is complete when the Examinee returns the cue sheet to the examiner.**	**STOP**

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-B

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

_____

_____

Response:

_____

_____

_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

INITIAL CONDITIONS:

- Unit 3 is at 100% and stable
- No equipment is out of service

INITIATING CUE:

- You have been directed to respond to plant conditions.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1

Facility: Turkey Point Task No: _____

Task Title: ALIGN SAFETY INJECTION FOR HOT LEG RECIRC JPM No: NRC-25-SIM-JPM-C

K/A Reference: 011 EK3.13 Hot-leg injection/recirculation 3.8 / 4.2

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing: _____

Simulated Performance _____ Actual Performance X

Classroom _____ Simulator X Plant _____

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

- UNIT ON COLD LEG RECIRCULATION (RHR LOOP A)
- 12 HOURS HAVE ELAPSED SINCE EVENT INITIATION
- IDLE RHR TRAIN AVAILABLE (RHR LOOP B)
- POWER AVAILABLE TO BOTH 4 KV BUSSES
- 3A HHSI PUMP IS RUNNING
- RHR SUPPLYING COLD LEG RECIRCULATION
- ALL CCW HEAT EXCHANGERS ARE IN SERVICE
- STEP 32 OF 3-EOP-E-1, Loss of Reactor or Secondary Coolant. IS IN PROGRESS
- 3-EOP-E-1, Loss of Reactor or Secondary Coolant. IS OPEN ON THE UNIT SUPERVISOR DESK AND OPEN TO STEP 32 WITH STEP 32 CIRCLED.

Task Standard:

- S.I. FLOW SUPPLIED TO HOT LEGS

Required Materials:

- 3-EOP-ES-1.4, TRANSFER TO HOT LEG RECIRCULATION
- 3-EOP-E-1, Loss of Reactor or Secondary Coolant

General References:

- 3-EOP-ES-1.4, TRANSFER TO HOT LEG RECIRCULATION
- 3-EOP-E-1, Loss of Reactor or Secondary Coolant

- Initiating Cue:

You have been directed to ALIGN SAFETY INJECTION FOR HOT LEG RECIRC AS REQUIRED BY STEP 32 OF 3-EOP-E-1, Loss of Reactor or Secondary Coolant.

Time Critical Task: NO

Validation Time: 15 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC # 58

Load Lesson

- LOADAND EXECUTE LESSON: JPM 01062012501.LSN
- TRIGGER "**MOV-3-869 CLOSED**"
- OPEN MOV-3-863A & MOV-3-863B
- Unfreeze simulator.

Ensure Simulator Operator Checklist is complete

Denote critical steps with a check mark()

Start Time

STEP 1 : √	TRANSITION AS REQUIRED BY STEP 32 OF 3-EOP-E-1	____SAT ____UNSAT
Standard:	TRANSITION MADE TO 3-EOP-ES-1.4, TRANSFER TO HOT LEG RECIRCULATION	
Cue		
Comment		
NOTE:	*Candidate should place a mark through circled step 32 prior to transition.*	

STEP 2 :	Check High-Head SI Pumps – ANY RUNNING	___SAT ___UNSAT
Standard:	• Candidate recognizes that 3A HHSI Pump is running	
Cue		
Comment		
NOTE:		

STEP 3 :	Verify RHR Heat Exchanger CCW Outlet Valve On Operating RHR Train – OPEN MOV-3-749A for train A	___SAT ___UNSAT
Standard:	MOV-3-749A, RHR Heat Exchanger CCW Outlet Valve VERIFIED OPEN	
Cue		
Comment		
NOTE:		

STEP 4 : √	3 Verify Safety Injection To Hot Leg Isolation Valve, MOV-3-869 - OPEN	___SAT ___UNSAT
Standard:	1.MOV-3-869 ATTEMPTED TO BE VERIFIED OPEN. (Candidate should attempt to open valve prior to transitioning to Att. 1) 2.Candidate transitions to to ATTACHMENT 1.	
Cue	If candidate calls to locally open MOV-3-869 tell candidate that valve is inaccessible.	
Comment		
NOTE:	MOV-3-869 is closed and cannot be opened. Operator should attempt to open valve prior to transitioning to Att. 1	

STEP 4 : √	ESTABLISH ALTERNATE HOT LEG INJECTION FLOWPATH (ATT. 1)	___SAT ___UNSAT
Standard:	1. TRANSITIONED TO ATTACHMENT 1 OF 3-EOP-ES-1.4 2. Primary Operator DIRECTED TO CLOSE 3-752A AND 3-752B 3. RHR LOOP VALVES MOV-3-750 AND MOV-3-751 OPENED	
Cue	BOOTH OPERATOR RESPOND AS PO/FS AND ON SIMULATOR TRIGGER "CLOSE 3-752A/B", I.F. OPERATOR REPORTS COMPLETION OF TASK.	
Comment		
NOTE:		

STEP 5 :	VERIFY THE POSITION OF THE RHR HEAT EXCHANGER OUTLET VALVE	___SAT ___UNSAT
Standard:	SNPO DIRECTED TO VERIFY THAT 3-759A IS OPEN	
Cue	BOOTH OPERATOR RESPOND AS PO/FS AND ON SIMULATOR REPORT 3-759A OPEN	
Comment		
NOTE:		

STEP 6 : √	REMOVE THE HHSI PUMPS AND CONTAINMENT SPRAY PUMPS FROM SERVICE	___SAT ___UNSAT
Standard:	CONTROL SWITCHES FOR ALL HHSI PUMPS ALIGNED TO UNIT 3 RWST AND THE UNIT 3 CONTAINMENT SPRAY PUMPS POSITIONED TO PULL-TO-LOCK	
Cue		
Comment		
NOTE:		

STEP 7 :	VERIFY RHR COLD LEG INJECTION ISOLATION VALVE OPEN	___SAT ___UNSAT
Standard:	MOV-3-744A AND/OR MOV-3-744B VERIFIED OPEN	
Cue		
Comment		
NOTE:		

STEP 8 : √	ISOLATE THE RHR ALTERNATE DISCHARGE FLOW-PATH	___SAT ___UNSAT
Standard:	• MOV-3-863A, RHR ALTERNATE DISCHARGE VALVE, CLOSED • MOV-3-863B, RHR ALTERNATE DISCHARGE VALVE, CLOSED	
Cue		
Comment		
NOTE:		

STEP 9 : √	ALIGN THE RHR RECIRCULATION FLOWPATH	___SAT ___UNSAT
Standard:	SNPO DIRECTED TO OPEN 3-741A, RHR RECIRC ISOLATION VALVE	
Cue	BOOTH OPERATOR TRIGGERS "**OPEN 3-741A**" AND REPORT STATUS TO OPERATOR 1-2 MINUTES AFTER ORDER WAS GIVEN	
Comment		
NOTE:		

STEP 10 : √	VERIFY STATUS OF CORE EXIT THERMOCOUPLES	___SAT ___UNSAT
Standard:	CORE EXIT TEMPERATURES VERIFIED STABLE OR DECREASING	
Cue		
Comment		
NOTE:		

STEP 11 :	CONTINUE LONG-TERM RECOVERY ACTIONS	___SAT ___UNSAT
Standard:	• RESTORATION OF NORMAL HOT LEG RECIRCULATION ATTEMPTED AS DIRECTED BY THE TSC STAFF • INJECTION TO BOTH HOT LEGS AND COLD LEGS VERIFIED • RHR PUMP INJECTION TO HOT AND COLD LEGS MAINTAINED UNTIL NORMAL HOT LEG RECIRCULATION LINEUP IS ESTABLISHED	
Cue	BOOTH OPERATOR RESPOND AS TSC AND CONFIRM PLAN IS IN PROGRESS TO RESTORE NORMAL HOT LEG INJECTION	
Comment		
NOTE:	OPERATOR SHOULD USE ERDADS SCREEN TO CONFIRM ALTERNATE RHR FLOW	

STEP 12 :	Return To Procedure And Step In Effect	____SAT ____UNSAT
Standard:	RETURNED TO 3-EOP-E-1, Loss of Reactor or Secondary Coolant, STEP 15.	
Cue		
Comment		
NOTE:		
Terminating Cue:	The task is complete when the Examinee returns the cue sheet to the examiner.	STOP
	Stop Time	

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-C

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

_____

_____

Response:

_____

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_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

- UNIT ON COLD LEG RECIRCULATION (RHR LOOP A)
- 12 HOURS HAVE ELAPSED SINCE EVENT INITIATION
- IDLE RHR TRAIN AVAILABLE (RHR LOOP B)
- POWER AVAILABLE TO BOTH 4 KV BUSSES
- 3A HHSI PUMP IS RUNNING
- RHR SUPPLYING COLD LEG RECIRCULATION
- ALL CCW HEAT EXCHANGERS ARE IN SERVICE
- STEP 32 OF 3-EOP-E-1, Loss of Reactor or Secondary Coolant. IS IN PROGRESS
- 3-EOP-E-1, Loss of Reactor or Secondary Coolant. IS OPEN ON THE UNIT SUPERVISOR DESK AND OPEN TO STEP 32 WITH STEP 32 CIRCLED.

INITIATING CUE:

You have been directed to ALIGN SAFETY INJECTION FOR HOT LEG RECIRC AS REQUIRED BY STEP 32 OF 3-EOP-E-1, Loss of Reactor or Secondary Coolant.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1

Facility:	Turkey Point	Task No:	
Task Title:	Respond to a Source Range Nuclear Instrument Malfunction (MODE 6)	Job Performance Measure No:	NRC-25-SIM-JPM-D
K/A Reference:	015 A2.02 (3.1/3.5)		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:	Simulator / Control Room		
Simulated Performance		Actual Performance	Yes
Classroom		Simulator Yes	Plant

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

1. Unit 3 is in Mode 6.
2. Refueling activities are in progress.
3. NIS Source Ranges N-31 and N-32 are both in service.
4. Both Gamma Metrics Channels are OOS for maintenance.

Task Standard:

1. N-32 selected for audio count rate.
2. Core alterations suspended.

Required Materials:

3-ONOP-059.5, Source Range Nuclear Instrumentation Malfunction

General References:

3-ONOP-059.5, Source Range Nuclear Instrumentation Malfunction

Initiating Cue:

Respond to plant conditions.

Time Critical Task: No

Validation Time: 10 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

INITIAL CONDITIONS:

1. Unit 3 is in Mode 6.
2. Refueling activities are in progress.
3. NIS Source Ranges are both in service.
4. Both Gamma Metrics are OOS for maintenance.

INITIATING CUE:

Respond to plant conditions.

TERMINATION CUE:

When you feel that you have satisfactorily completed the assigned task, hand your JPM briefing sheet back to me.

Do you have any questions?

You may begin.

NOTES TO EVALUATOR AND BOOTH OPERATOR:

1. Reset to IC 117 Cavity Drain Pre-Req's Complete
2. Place both channels of Gamma-Metrics O.O.S.:
   a. Schema □ REACTOR □ INCORE/EXCORE DETECTORS □ Detector #9 □ TFN1WAFL NE801A DETECTOR FAIL LOW □ TRUE then INSERT
   b. Detector #10 □ TFN1WBFL NE801B DETECTOR FAIL LOW □ TRUE then INSERT
   c. Place both Gamma-Metric Block Switches to BLOCK on console
3. Select N-31 for Audio Count Rate; Select N-31/N-32 and N-35/N-36 on console NIS Recorder
4. Place CSD Placards on Vertical Panels.
5. Update console placard to read RCS BORON = 2000 ppm
6. Adjust Boric Acid and Primary Water Auto Makeup flow controller potentiometers for 2000 ppm boron concentration (HIC-3-114 = 4.0, FC-3-113 = 8.0)
7. Change ERDADS screen on VPA to P-T display.
8. Provide an extra Operator to acknowledge annunciators and maintain stable plant conditions.
9. **When Operator has received a turnover of plant status, fail Source Range NI N-31 HIGH:**

   Schema □ REACTOR □ INCORE/EXCORE DETECTORS □ Detector #1 □ TFN1SAFH NE101N31 DETECTOR FAIL HIGH □ TRUE then INSERT

Denote critical steps with a check mark ()

Start Time _____

STEP 1 : √	Perform Immediate actions of 3-ONOP-059.5, SOURCE RANGE NUCLEAR INSTRUMENTATION MALFUNCTION. 4.0 **IMMEDIATE ACTIONS** 4.5 Mode 6 – Refueling 4.5.1 Malfunction of ONE channel: 1. Switch the AUDIO COUNT RATE CHANNEL SELECTOR to the operable source range. 2. Verify at least 2 out of 4 Source Range and Backup NIS (Gamma Metrics) channels are operable, with one Source Range having audible count rate in the Control Room and Containment. a. **IF** the above requirement is not met, **THEN** suspend all operations involving core alterations **OR** positive reactivity changes. 3. **IF** applicable, **THEN** notify plant personnel of erroneous Containment Evacuation Alarm.	___SAT ___UNSAT
STANDARD:	1. Switches AUDIO COUNT RATE CHANNEL SELECTOR from N-31 to N-32. 2. Suspends all operations involving core alterations since only one of four source range NIs are operable. * 3. Notifies plant personnel of erroneous Containment Evacuation Alarm **Operator may reference procedure to verify / perform actions.**	
CUE:	*Respond as Refueling SRO and/or Reactor Engineer/STA if notified to stop refueling activities and store fuel assemblies in a safe location. Report that refueling has stopped and fuel assemblies are all safely located.*	
Comment		
NOTE:	**Source Range N-31 has failed HIGH.**	

STEP 2 :	Operator obtains copy of 3-ONOP-059.5.	___SAT ___UNSAT
STANDARD:	1. Operator obtains Simulator copy of 3-ONOP-059.5 2. Operator verifies Immediate Actions are correct.	
Cue		
Comment		
NOTE:		

STEP 3 : √	5.0 **SUBSEQUENT ACTIONS** 5.5 Mode 6 – Refueling 5.5.1 Malfunction of ONE channel: 1. Place LEVEL TRIP switch on failed channel in BYPASS position. 2. Place HIGH FLUX AT SHUTDOWN switch on failed channel in BLOCK position. 3. Switch an NIS RECORDER to the operable source range. 4. **IF** one Source Range having audible count rate in the Control Room and Containment, **AND** 2 out of 4 NIS (NSSS Source Range and Gamma Metrics) Channels are not operable, **THEN** verify RCS boron concentration is greater than or equal to the required boron concentration at least once per 12 hours. 5. Notify I&C. 6. Monitor Backup NIS (Gamma Metric) Source Range Count Rate.	___SAT ___UNSAT
STANDARD:	Operator removes N-31 from service. 1. Positions LEVEL TRIP switch to BYPASS. 2. Positions HIGH FLUX AT SHUTDOWN switch to BLOCK. 3. Verifies N-32 displayed on console NIS recorder. 4. Contacts Chemistry determines Boron concentration ≥ 1950 ppm. 5. Notifies I&C of N-31 failure. 6. Determines both backup NIS (Gamma-Metric) channels OOS.	
CUES:	1.If called as Reactor Engineering, state that the required RCS Boron concentration is > 1950 ppm. 2.If called as Chemistry, confirm Boron concentration is 2000 ppm. 3.Respond as I&C if notified of N-31 failure. 4.Inform the applicant that another operator will continue from this point.	
Comment		
NOTE:	*Only Standards 1 and 2 are critical.*	

STEP 4 :	Applicant should return JPM Initial Condition sheet and state that operator actions are complete.	___SAT ___UNSAT
Terminating CUE:	If operator attempts any other compensatory actions beyond this point tell operator that JPM has been completed.	**STOP**

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-D

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

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_____

Response:

_____

_____

_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

INITIAL CONDITIONS:

1. Unit 3 is in Mode 6.
2. Refueling activities are in progress.
3. NIS Source Ranges are both in service.
4. Both Gamma Metrics are OOS for maintenance.

INITIATING CUE:

Respond to plant conditions.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU FEEL THAT YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility: Turkey Point Task No: _____

Task Title: Purging the PRT to Reduce Oxygen or Hydrogen Concentration (Major Gas Volume) JPM No: NRC-25-SIM-JPM-E

K/A Reference: 007 K1.04 Nitrogen 2.1/2.3

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing: _____

Simulated Performance _____ Actual Performance X

Classroom _____ Simulator~~X~~ _____ Plant _____

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
- Chemistry reports that PRT Oxygen Concentration is 2.5% by Volume
- Unit 3 is in Mode 1 at 100% Power with no equipment out of service.
- 3-NOP-041.3, Pressurizer Relief Tank up to and including step 5.5.11 has been completed by the off-going shift
- You are the oncoming Reactor Operator and have been briefed on the evolution.
- PRT Level is at 80%.

Task Standard:
- Purge the PRT to Reduce Oxygen Concentration to within required specifications.

Required Materials:
- 3-NOP-041.3, Pressurizer Relief Tank

General References:
- 3-NOP-041.3, Pressurizer Relief Tank

Initiating Cue:

- You have been directed to Purge the PRT to Reduce Oxygen Concentration to within required specifications using 3-NOP-041.3, Pressurizer Relief Tank step 5.5.11.
- All prerequisites have been satisfied.
- You are continuing 3-NOP-041.3 after a turnover from the off-going shift.

Time Critical Task: No

Validation Time: 10 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

Load saved IC on Flash Drive XR-043.dat

Load Lesson

Ensure Simulator Operator Checklist is complete

CLOSE Gas waste Disposal V4658A & B

Denote critical steps with a check mark()

Start Time _____

STEP 1 : √	**11. ENSURE** CV-3-549, PRT VENT, is OPEN	___SAT ___UNSAT
Standard:	1. Placed PRT Vent Valve, CV-3-549 switch to open. 2. Verified PRT Vent Valve, CV-3-549 Red Light ON Green Light OFF.	
Cue		
Comment		
NOTE:	*Standard #2 is not critical.*	

STEP 2 : √	**13. OPEN** CV-3-519B, PRT PRIMARY WATER MAKE UP.	___SAT ___UNSAT
Standard:	1. Placed PRT Vent Valve, CV-3-519B switch to open. 2. Verified PRT Vent Valve, CV-3-519B Red Light ON Green Light OFF.	
Cue		
Comment		
NOTE:	*Standard #2 is not critical.*	

STEP 3 : √	**5.5 Purging the PRT to Reduce Oxygen or Hydrogen Concentration (Major Gas Volume) (continued)** 14. WHEN any of the following conditions exists: • PRT level approaches 95% on LI-3-470, PRZR RELIEF TK LEVEL • PRT pressure approaches 10 psig on PI-3-472, PRZR RELIEF TK PRESSURE THEN **CLOSE** CV-3-519B, PRT PRIMARY WATER MAKE UP.	___SAT ___UNSAT
Standard:	1. When PRT level approaches 95% placed PRT Vent Valve, CV-3-519B switch to close. 2. Verified PRT Vent Valve, CV-3-519B Red Light OFF Green Light ON	
Cue		
Comment		
NOTE:	*1. Standard #2 is not critical.*	

STEP 4 :	**15. MAINTAIN** PRT level at 90 to 95% for 25 to 35 minutes.	___SAT ___UNSAT
Standard:		
Cue	1. Tell operator that 35 minutes have elapsed. 2. Tell operator that 3-NOP-041.3 steps 16, 17, and 18 have been completed.	
Comment		
NOTE:		

STEP 5 :		___SAT ___UNSAT
Standard:		
Cue		
Comment		
NOTE:		

STEP 6 : √	**5.5 Purging the PRT to Reduce Oxygen or Hydrogen Concentration (Major Gas Volume) (continued)** **19.** WHEN PRT pressure indicated on PI-3-472 has lowered to approximately 6 psig, as controlled by nitrogen supply regulator, THEN **CLOSE** CV-3-549, PRT VENT.	___SAT ___UNSAT
Standard:	1. Placed PRT Vent Valve, CV-3-549 switch to close. 2. Verified PRT Vent Valve, CV-3-549 Red Light OFF Green Light ON	
Cue	Tell operator that Chemistry informs Reactor Operator that PRT oxygen reading is less than 2 percent oxygen by volume.	
Comment		
NOTE:	*Standard #2 is not critical.*	

STEP 7 : √	21. WHEN Chemistry reports PRT oxygen reading less than 2% by volume, THEN: **A. CLOSE** CV-3-519A, PRT VENT.	___SAT ___UNSAT
Standard:	1. CV-3-519A, Primary Water to Containment Isolation switch taken to close. 2. Veriified CV-3-519A Green Light ON, Red Light OFF.	
Cue	After standard #2 has been completed, inform the Reactor Operator that another operator will perform the remainder of the procedure.	
Comment		
NOTE:		
Terminating Cue:	*Standard #2 is not critical.* **The task is complete when the Examinee returns the cue sheet to the examiner.**	**STOP**

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-E

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

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Response:

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_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

- Chemistry reports that PRT Oxygen Concentration is 2.5% by Volume
- Unit 3 is in Mode 1 at 100% Power with no equipment out of service.
- 3-NOP-041.3, Pressurizer Relief Tank up to and including step 5.5.11 has been completed by the off-going shift
- You are the oncoming Reactor Operator and have been briefed on the evolution.
- PRT Level is at 80%.

Initiating Cue:

- You have been directed to Purge the PRT to Reduce Oxygen Concentration to within required specifications using 3-NOP-041.3, Pressurizer Relief Tank step 5.5.11.
- All prerequisites have been satisfied.
- You are continuing 3-NOP-041.3 after a turnover from the off-going shift.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1

Facility: Turkey Point Task No: _____

Task Title: INITIATE CONTAINMENT PURGE JPM No: NRC-25-SIM-JPM-F

K/A Reference: 029 A4.01 Containment purge flow rate 2.5/2.5

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:

Simulated Performance _____ Actual Performance X

Classroom _____ Simulator~~X~~ _____ Plant _____

Read to the examinee:

I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

- UNIT 3 IS IN MODE 5 WITH ALL PURGE VALVES CLOSED.
- UNIT 3 EQUIPMENT, PERSONNEL, AND EMERGENCY HATCHES ARE CLOSED.
- UNIT 4 IS IN MODE 1 WITH ALL PURGE VALVES CLOSED AND CONTAINMENT EQUIPMENT, PERSONNEL, AND EMERGENCY HATCHES ARE CLOSED.
- ALL APPLICABLE PREREQUISITES OF 3-NOP-053 ARE SATISFIED.
- CONTAINMENT PURGE RELEASE PERMIT IS APPROVED.
- 3-NOP-053, CONTAINMENT PURGE SYSTEM IS SIGNED OFF AND COMPLETED UP TO STEP 4.1.1.11.

Task Standard:

- ISOLATION VALVES OPEN AND PURGE FANS RUNNING IN ACCORDANCE WITH 3NOP-053, CONTAINMENT PURGE SYSTEM

Required Materials:

- 3-NOP-053, CONTAINMENT PURGE SYSTEM
- APPROVED CONTAINMENT PURGE RELEASE PERMIT

General References:

- 3-NOP-053, CONTAINMENT PURGE SYSTEM

Initiating Cue:

1. A satisfactory shift turnover has been completed.

2. You have been directed to continue with Step 4.1.1.12 of 3-NOP-053, CONTAINMENT PURGE SYSTEM and perform a purge of the Unit 3 Containment.

Time Critical Task: No

Validation Time: 10 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

Mode 5 IC with Containment Purge Valves CLOSED and Fans OFF

Load Lesson

Ensure Simulator Operator Checklist is complete

Denote critical steps with a check mark()

Start Time _____

STEP 1 : √	4.1.1.12 Open the following valves: 1. Containment Purge Exhaust Isol (O.C.), POV-3-2602 2. Containment Purge Exhaust Isol (I.C.), POV-3-2603	___SAT ___UNSAT
Standard:	1. Containment Purge Exhaust Isol (O.C.), POV-3-2602 switch placed to Open 2. Verified Containment Purge Exhaust Isol (O.C.), POV-3-2602 Red Light On, Green Light Off. 3. Containment Purge Exhaust Isol (I.C.), POV-3-2603 switch placed to Open 4. Verified Containment Purge Exhaust Isol (O.C.), POV-3-2603 Red Light On, Green Light Off.	
Cue		
Comment		
NOTE:	***Standards #2 and #4 not critical***	

STEP 2 :	4.1.1.13 Prepare to open Containment Purge Supply Isolation Valves	___SAT ___UNSAT
Standard:	If both conditions are met then both Unit 3 Containment Purge Supply Valves will be open. 1. Verified Containment Doors/Hatches closed to atmosphere. 2. Verified on opposite Unit that Purge Supply Valves closed or Doors/Hatches are closed to atmosphere	
Cue	Repeat applicable initial conditions if asked: • UNIT 3 EQUIPMENT, PERSONNEL, AND EMERGENCY HATCHES ARE CLOSED. • UNIT 4 IS IN MODE 1 WITH ALL PURGE VALVES CLOSED AND CONTAINMENT EQUIPMENT, PERSONNEL, AND EMERGENCY HATCHES ARE CLOSED.	
Comment		
NOTE:	This information is covered in the Initial Conditions	

STEP 3 : √	4.1.1.13 (contd.)` Open the following valves: 1. Containment Purge Supply Isol (O.C.), POV-3-2600 2. Containment Purge Supply Isol (I.C.), POV-3-2601	___SAT ___UNSAT
Standard:	1. Containment Purge Supply Isol (O.C.), POV-3-2600 switch placed to Open. 2. Verified Containment Purge Supply Isol (O.C.), POV-3-2600 Red Light On, Green Light Off. 3. Containment Purge Supply Isol (I.C.), POV-3-2601 switch placed to Open. 4. Verified Containment Purge Supply Isol (O.C.), POV-3-2601 Red Light On, Green Light Off.	
Cue		
Comment		
NOTE:	***Standards #2 and #4 not critical***	

STEP 4 : √	4.1.1.14 Start 3V20: Unit 3 Containment Purge Exhaust Fan.	___SAT ___UNSAT
Standard:	1. Control Switch Positioned to Run 2. Verified Fan Red Light On and Green Light Off 3. Verified Damper Red Light On Green Light Off	
Cue	If candidate attempts to have 4V20: Unit 4 Containment Purge Exhaust Fan, tell candidate that the Unit Supervisor desires the Unit 3 Fan to be started.	
Comment		
NOTE:	***Standards 2,3, and 4 are not critical***	

STEP 5 : √	4.1.1.15 Start 3V9: Unit 3 Containment Purge Supply Fan.	____SAT ____UNSAT
Standard:	1. Verify POV-3-2600 and POV-3-2601, Containment Purge Supply Isolations are open. 2. Control Switch Positioned to Run 3. Verified Fan Red Light On and Green Light Off 4. Verified Damper Red Light On Green Light Off 5. Ensures MO-3-3421, Unit 3 Containment Purge Exhaust Damper is OPEN.	
Cue	Tell candidate that another operator will complete the remainder of the procedure.	
Comment		
NOTE:	***Standards #2 and #3not critical***	
Terminating Cue:	***The task is complete when the Examinee returns the cue sheet to the examiner.***	STOP
	Stop Time	

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-F

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

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_____

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Response:

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_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

- UNIT 3 IS IN MODE 5 WITH ALL PURGE VALVES CLOSED.
- UNIT 3 EQUIPMENT, PERSONNEL, AND EMERGENCY HATCHES ARE CLOSED.
- UNIT 4 IS IN MODE 1 WITH ALL PURGE VALVES CLOSED AND CONTAINMENT EQUIPMENT, PERSONNEL, AND EMERGENCY HATCHES ARE CLOSED.
- ALL APPLICABLE PREREQUISITES OF 3-NOP-053 ARE SATISFIED.
- CONTAINMENT PURGE RELEASE PERMIT IS APPROVED.
- 3-NOP-053, CONTAINMENT PURGE SYSTEM IS SIGNED OFF AND COMPLETED UP TO STEP 4.1.1.11.

INITIATING CUE:

You have been directed to commence with Step 4.1.1.12 of 3-NOP-053, CONTAINMENT PURGE SYSTEM and perform a purge of the Unit 3 Containment.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Appendix C	Job Performance Measure Worksheet	Form ES-C-1

Facility:	Turkey Point	Task No:	
Task Title:	Fill 3A Accumulator	JPM No:	NRC-25-SIM-JPM-G
K/A Reference:	006 A1.13 Accumulator pressure (level, boron concentration)3.5/3.7		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:			
Simulated Performance		Actual Performance	X
Classroom		Simulator X	Plant

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:
- 3-OP-064 Safety Injection Accumulators, Section 7.1, Adding Make-up to the Safety Injection Accumulators up to 7.1.2.2.2.a has been completed.
- 7.1.2.2.b,c, and d are marked N/A.
- It is desired to use the 3A HHSI Pump for this task

Task Standard:
- Make-up to the 3A Safety Injection Accumulator to 6600 ± 20 gallons.

Required Materials:
- 3-OP-064 Safety Injection Accumulators

General References:
- 3-OP-064 Safety Injection Accumulators

Initiating Cue:

You have been directed to raise 3A Accumulator Level to 6600 ± 20 gallons using 3A SAFETY INJECTION PUMP starting at step: 7.1.2.2.3.

- 3-OP-064 Safety Injection Accumulators, Section 7.1, Adding Make-up to the Safety Injection Accumulators up to 7.1.2.2.2.a has been completed.
- 7.1.2.2.b,c, and d are marked N/A.

Time Critical Task: NO

Validation Time: 15 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC # 1

Load Lesson

- Open SI Pump 3A and 3B Test Recirc Isolation, 3−899L.
- Open SI Pump 3A Test Recirc Isolation, 3-899K.

Ensure Simulator Operator Checklist is complete

Ensure marked up copy of 3-OP-064 Safety Injection Accumulators, Section 7.1, Adding Make-up to the Safety Injection Accumulators up to 7.1.2.2.2.a has been completed. Steps 7.1.2.2.b,c, and d are marked N/A. Step 7.1.2.3 is circled.

Denote critical steps with a check mark()

Start Time _____

STEP 1 : √	Open the Accumulator Makeup Valve for Accumulator A, CV-3-851A	___SAT ___UNSAT
Standard:	1. Placed Control Switch to Open for Accumulator A, CV-3-851A 2. Verified Red OPEN light ON 3. Verified Green CLOSED light OFF	
Cue		
Comment		
NOTE:	Standards 2 and 3 are not critical.	

STEP 2 : √	Start the 3A Safety Injection Pump document the start time on QA Record Page	___SAT ___UNSAT
Standard:	1. 3A HHSI Pump Control Switch turned to START 2. 3A HHSI Pump Red Run light is ON 3. 3A HHSI Pump Green Stop light is OFF	
Cue		
Comment		
NOTE:	Standards 2 and 3 are not critical.	

STEP 3 : √	Open the Loop 3A and 3B Hot Leg SI Isolation, MOV-3-869 to establish flow to the accumulator.	___SAT ___UNSAT
Standard:	1. Opens the Loop 3A and 3B Hot Leg SI Isolation, MOV-3-869. 2. MOV-3-869 Red OPEN light is ON. 3. MOV-3-869 Green CLOSED light is OFF.	
Cue	If Operator asks for the use of another operator tell operator that the evaluator/designated operator will serve in this capacity.	
Comment		
NOTE:	A second operator may be utilized to operate MOV-3-869 to allow sufficient time to perform the self-checking process. Standards 2 and 3 are not critical.	

STEP 4 : √	**WHEN** accumulator level has increased to 6600 ± 20 gallons, **THEN** close Loop 3A and 3B Hot Leg SI Isolation, MOV-3-869.	___SAT ___UNSAT
Standard:	1. Loop 3A and 3B Hot Leg SI Isolation, MOV-3-869 switch has been taken to CLOSE 2. Loop 3A and 3B Hot Leg SI Isolation, MOV-3-869 CLOSE Green Light is ON. 3. Loop 3A and 3B Hot Leg SI Isolation, MOV-3-869 OPEN RED Light is OFF.	
Cue		
Comment		
NOTE:	Standards 2 and 3 are not critical.	

STEP 5 : √	**Operator** Stops the 3A Safety Injection Pump **AND** verifies the control switch is in the mid position.	___SAT ___UNSAT
Standard:	1. 3A HHSI Pump Control Switch turned to Stop and released to Mid 2. 3A HHSI Pump Red Run light is OFF 3. 3A HHSI Pump Green Stop light is ON	
Cue		
Comment		
NOTE:	Standards 2 and 3 are not Critical to this step.	

STEP 6 : √	CLOSE the Accumulator Makeup Valve for Accumulator A, CV-3-851A	___SAT ___UNSAT
Standard:	1. Placed CV-3-851A Control Switch to CLOSE and released to MID 2. Verified CV-3-851A RED Open light OFF 3. Verified CV-3-851A GREEN CLOSED Light ON	
Cue	Once Operator has verified CV-3-851A is CLOSED, tell the operator that the JPM is terminated.	
Comment		
NOTE:	Standards 2 and 3 are not Critical to this step.	
Terminating Cue:	**The task is complete when the Examinee returns the cue sheet to the examiner.**	**STOP**

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-G

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

_____

_____

Response:

_____

_____

_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

INITIAL CONDITIONS:

- 3-OP-064 Safety Injection Accumulators, Section 7.1, Adding Make-up to the Safety Injection Accumulators up to 7.1.2.2.2.a has been completed.
- 7.1.2.2.b,c, and d are marked N/A.
- It is desired to use the 3A HHSI Pump for this task

INITIATING CUE:

You have been directed to raise 3A Accumulator Level to 6600 ± 20 gallons using 3A SAFETY INJECTION PUMP starting at step: 7.1.2.2.3.

- 3-OP-064 Safety Injection Accumulators, Section 7.1, Adding Make-up to the Safety Injection Accumulators up to 7.1.2.2.2.a has been completed.
- 7.1.2.2.b,c, and d are marked N/A.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.

Facility:	Turkey Point	Task No:	
Task Title:	Perform EDG Normal Start Test (Alternate Path)	JPM No:	NRC-25-SIM-JPM-H
K/A Reference:	064 A2.05 Loading the ED/G 3.1/ 3.2		
Examinee:		NRC Examiner:	
Facility Evaluator:		Date:	
Method of testing:	Simulator		
Simulated Performance		Actual Performance	X
Classroom		Simulator	X
Plant			

Read to the examinee:
I will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

Initial Conditions:

You are the Unit 3 RCO. 3-OSP-023.1, Diesel Generator Operability Test, has been satisfactorily completed through 7.1.2.30.

Task Standard:

1. The EDG will be synchronized to the Bus in accordance with 3-OSP-023.1.
2. The EDG is placed to Emergency Stop when required.

Required Materials:

1. 3-OSP-023.1, "Diesel Generator Operability Test"

General References:

1. 3-OSP-023.1, "Diesel Generator Operability Test"

Initiating Cue:

You have been directed to continue the Monthly EDG Normal Start Test (3A EDG) starting at step 7.1.2.31. 3-OSP-023.1.

Time Critical Task: No

Validation Time: 15 minutes

HAND JPM BRIEFING SHEET TO EXAMINEE AT THIS TIME!

SIMULATOR SETUP

Reset to IC #

Reset to IC-1.

Load Lesson

1. Open lesson JPM 01023006201.lsn and execute.
2. Ensure 3A EDG has been started and in stable operation.

Ensure Simulator Operator Checklist is complete

STEP 1 : √	Place the EDG Bkr 3AA20 Synchronizing switch to ON.	___ SAT ___ UNSAT
Standard:	1. Placed the EDG Bkr 3AA20 Synchronizing switch to ON. 2. Check that the WHITE synchronizing lights are cycling ON.	
Cue		
Comment		
NOTE:	*Standard #2 is not Critical to this step.*	

STEP 2 : √	Using the A Diesel Gen Volt Regulator, adjust Incoming voltage to match Running indicated voltage.	___ SAT ___ UNSAT
Standard:	Using the voltage adjust control switch, adjusted the generator voltage on the Bus Voltage Incoming indicator to match the voltage on the Bus Voltage Running indicator.	
Cue		
Comment		
NOTE:		

STEP 3 : √	Using the A Diesel Gen Speed Changer, adjust engine speed so that the pointer on the Synchroscope is rotating slowly in the FAST direction.	___ SAT ___ UNSAT
Standard:	Adjusted engine speed so that the pointer on the synchroscope is rotating slowly in the FAST direction.	
Cue		
Comment		
NOTE:		

STEP 4 : √	Using the A Diesel Gen Volt Regulator, adjust Incoming voltage slightly higher than Running voltage.	___ SAT ___ UNSAT
Standard:	Using the voltage adjust control switch, adjusted the generator voltage on the Bus Voltage Incoming indicator to match the voltage on the Bus Voltage Running indicator.	
Cue		
Comment		
NOTE:		

STEP 5 :	Using the A Diesel Kilovolts indicator and 3A 4KV Bus Voltmeter, verify voltages are approximately equal between the 3A Diesel Generator output and the 3A 4KV Bus for all three phases.	___ SAT ___ UNSAT
Standard:	Verified voltages are approximately equal.	
Cue		
Comment		
NOTE:		

STEP 6 :	Verify 3A Diesel Generator frequency is between 58.8 and 61.2 Hz on the Gen Frequency indicator	___ SAT ___ UNSAT
Standard:	Verified 3A Diesel Generator frequency is between 58.8 and 61.2 Hz on the Gen Frequency indicator	
Cue		
Comment		
NOTE:		

STEP 9 : √	**WHEN** the synchroscope pointer is at 12 o'clock position, **THEN** close the diesel generator breaker by placing the EDG Bkr 3AA20 Control Switch to the CLOSE position (spring return to normal).	___ SAT ___ UNSAT
Standard:	1. Closed the diesel generator breaker by placing the EDG Bkr 3AA20 Control Switch to the CLOSE position **WHEN** the synchroscope pointer reached the12 o'clock position. 2. Verified the Diesel Generator Breaker 3AA20 has closed (Breaker GREEN light is OFF and RED light is ON).	
Cue		
Comment		
NOTE:	*Standard #2 is not Critical to this step.*	

STEP 10 : √	Place the EDG Bkr 3AA20 Synchronizing switch to OFF	___ SAT ___ UNSAT
Standard:	Placed the EDG Bkr 3AA20 Synchronizing switch to OFF	
Cue		
Comment		
NOTE:		

STEP 11 : √	Turn the A EDG Speed Changer in the RAISE direction and slowly increase diesel generator load to approximately 1000 KW.	___ SAT ___ UNSAT
Standard:	1. Turned the Governor Control Switch **AND** slowly loaded diesel generator to approximately 1000 KW. 2. Operator recognizes EDG problem and places EDG to Emergency Stop.	
Cue	1. If candidate asks tell candidate that vendor has cleared generator power increase to 1000 kw. **2. When the 3A EDG Voltage Regulator is taken to RAISE, SIM OPERATOR initiates a continuous increase in Voltage Regulator setting up to the point where increasing oscillations in Voltage/Load begin.** 3. When Operator places EDG to Emergency Stop or EDG trips tell operator that another operator will take over. 4. Tell operator that JPM is complete.	
Comment		
NOTE:		
Terminating Cue:	*The task is complete when the Examinee returns the cue sheet to the examiner.*	STOP

Stop Time _____

Verification of Completion

Job Performance Measure No. NRC-25-SIM-JPM-H

Examinee's Name: _____

Examiner's Name: _____

Date Performed: _____

Facility Evaluator: _____

Number of Attempts: _____

Time to Complete: _____

Question Documentation:

Question:

_____

_____

_____

_____

_____

Response:

_____

_____

_____

_____

_____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____ _____

JPM BRIEFING SHEET

The examiner will explain the initial conditions, which steps to simulate or discuss, and provide initiating cues. When you complete the task successfully, the objective for this job performance measure will be satisfied.

INITIAL CONDITIONS:

You are the Unit 3 RCO. 3-OSP-023.1, Diesel Generator Operability Test, has been satisfactorily completed through 7.1.2.30.

INITIATING CUE:

You have been directed to continue the Monthly EDG Normal Start Test (3A EDG) starting at step 7.1.2.31. 3-OSP-023.1.

Acknowledge to the examiner when you are ready to begin.

HAND THIS PAPER BACK TO YOUR EVALUATOR WHEN YOU HAVE SATISFACTORILY COMPLETED THE ASSIGNED TASK.