

V.C. SUMMER NUCLEAR STATION

NRC JOB PERFORMANCE MEASURE

JPS-006

Pressurizer Level Malfunction (NRC)

Revision No. 3

A/10

Pressurizer Level Malfunction (NRC)

INITIATING CUES:

1. Respond to pressurizer annunciators.

TERMINATING CUES:

1. Operable channel selected.
2. Bistable tripped.
3. Letdown restored.

SAFETY CONSIDERATIONS:

NONE

JOB PERFORMANCE MEASURE CHECKLIST

PAGE 2

(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

NOTE 1: Steps 1 and 2 are immediate operator actions.

<u>STEP</u>	<u>STANDARD</u>		
S 1. Verify instrument failure by comparing suspect channel level indication and level recorder to other two channels.	Compares LI-459 to LI-460 and LI-461 and recognizes that LI-459 has failed to 0% level.	_____	_____

<u>STEP</u>	<u>STANDARD</u>		
S*2. On pressurizer level control switch, select the position which has two operable channels.	Positions the PZR level control switch to the 460 - 461 position.	_____	_____

COMMENTS: _____

<u>STEP</u>	<u>STANDARD</u>		
3. Select operable channel on the pressurizer level recorder.	Verifies the pressurizer level recorder position switch channel 460.	_____	_____

NOTE 4: Critical if FCV-122 not full closed.

<u>STEP</u>	<u>STANDARD</u>		
*4. Ensure FCV-122 is in manual and closed. (SOP-102, IV L)	Positions FCV-122 in MANUAL and reduces the demand signal to zero. Observes FI-122 charging flow goes to zero.	_____	_____

COMMENTS: _____

JOB PERFORMANCE MEASURE CHECKLIST

(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

STEP

STANDARD

5. Ensure PZR level is greater than 18%.

Checks LI-460 & LI-461 to verify PZR level is greater than 18%.

NOTE 6: Only critical if valve is not opened enough to prevent letdown relief from lifting.

STEP

STANDARD

*6 Place PCV-145 in manual and open to 70%.

Positions PCV-145, controller to MANUAL and increases the demand signal to 70%.

COMMENTS: _____

STEP

STANDARD

7. Open TCV-144 for maximum CCW flow to Letdown HX.

Places TCV-144, CC TO LTDN HX, in MAN and adjusts to 100% demand.

STEP

STANDARD

8. Align letdown flow to the VCT.

Positions TCV-143, LTDN TO VCT OR DEMIN, to the VCT position.

STEP

STANDARD

9 Open PVT-8152 letdown line isolation

Verifies PVT-8152, LETDOWN LINE ISOL, indicates red light ON green light OFF.

NOTE 10: LCV-460 should already be open.

STEP

STANDARD

*10. Open LCV-459 and LCV-460 letdown line isolation valve

LCV-459 and LCV-460 indicate red light ON, green light OFF.

JOB PERFORMANCE MEASURE CHECKLIST

PAGE 4

(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

COMMENTS: _____

STEP

STANDARD

11. Ensure Charging Line Isolation
Valves are open.

MVG-8107 and MVG-8108 indicate red lighth
ON, green light OFF.

NOTE 12: Cue examinee to establish 105 gpm letdown flow.

STEP

STANDARD

S*12. Establishes 60 gpm charging
flow

Slowly opens FCV-122, CHG FLOW,
establish 60 gpm flow on FI-122A

COMMENTS: _____

STEP

STANDARD

*13. Open PVT-8149A and one of the
following PVT-8149B or
PVT-8149C.

PVT-8149A and PVT-8149B or C indicate
red light ON green light OFF.

COMMENTS: _____

JOB PERFORMANCE MEASURE CHECKLIST

(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

STEP

STANDARD

*14. Open FCV-122 charging flow, as needed to maintain Regenerative Hx outlet between 250°F and 350°F and maintain Pzr level.

Increases or decreases the demand signal on the FCV-122 controller to maintain Regenerative Hx outlet between 250°F and 350°F and Pzr level at program without lifting letdown line relief.

COMMENTS: _____

STEP

STANDARD

*15. Close PCV-145 to maintain letdown pressure between 300 and 400 psig.

Decreases the demand signal on the PCV-145 controller to close PCV-145 and observes pressure indication to maintain letdown pressure between 300 and 400 psig without lifting letdown line relief.

COMMENTS: _____

STEP

STANDARD

16 Places PCV-145, LO PRESSURE LETDOWN in AUTO.

PCV-145, LO PRESS LTDN controller, AUTO pushbutton lit.

STEP

STANDARD

17. Places TCV-144, CC TO LTDN HX, in AUTO.

TCV-144,CC TO LTDN HX controller, AUTO pushbutton lit.

NOTE 18: Operator may delay returning FCV-122 to Auto if PZR level is above program to prevent excessive reduction of charging by PZR LCS.

JOB PERFORMANCE MEASURE CHECKLIST

(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

<u>STEP</u>	<u>STANDARD</u>		<u>SAT.</u>	<u>UNSAT.</u>
18. Places FCV-122, charging flow in AUTO when pressurizer level matches reference level.	Places FCV-122 controlled in AUTO by depressing AUTO pushbutton when levels matched per Section III.E of SOP-102.	ATTACHED	_____	_____
<u>STEP</u>	<u>STANDARD</u>			
19. Places TCV-143, LTDN to VCT or DEMIN, in DEMIN/AUTO.	Momentarily positions TCV-143 to the DEMIN/AUTO position after letdown temperatures have stabilized.		_____	_____
<u>STEP</u>	<u>STANDARD</u>			
20. Ensure that pressurizer level master controller is responding correctly.	Observes that the Pressurizer Level Master Controller is responding properly.		_____	_____
<u>STEP</u>	<u>STANDARD</u>			
*21. Align the pressurizer heaters for existing plant conditions.	Momentarily places CNTRL GRP heater switch to CLOSE with RED flag indication Clears amber trip light on BU GRP1 heaters.		_____	_____

COMMENTS: _____

NOTE 22: RO ONLY: Protection bistables are tripped by I&C. Examiner hands operator Attachment 1 of AOP-401.6 and directs him to ensure appropriate bistables are tripped. Ask him to identify correct bistable.

<u>STEP</u>	<u>STANDARD</u>		<u>SAT.</u>	<u>UNSAT.</u>
22. Ensure bistables tripped per Attachment 1.	Verifies proper bistable tripped per Attachment 1.		_____	_____

JOB PERFORMANCE MEASURE CHECKLIST

PAGE 7

(S) DENOTES SEQUENCED ELEMENT
(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

NOTE 23: SRO ONLY: Examiner hands operator Attachment II of SOP-401 and asks him to explain how it is filled out.

STEP

STANDARD

23. Directs I&C to trip appropriate bistables and ensure bistables tripped per Attachment 1.

Explains how Attachment II of SOP-401 is used and verifies proper bistable tripped per Attachment I of SOP-401.

Examiner Stops JPM At This Point

TIME STOPPED: _____

GENERAL COMMENTS:

NRC KA REFERENCES:

<u>KA NUMBER</u>		<u>IMPORTANCE</u>	<u>FACTOR</u>
		<u>RO</u>	<u>SRO</u>
011000.A1.01	Ability to stay predict and/or monitor changes in PZR level and pressure when operating PZR LCS controls.	3.5	3.6
011000.A2.03	Ability to predict and mitigate the consequences of loss of PZR level.	3.8	3.9