

NRC REGION III
INITIAL LICENSE EXAM
JOB PERFORMANCE MEASURE

JPM: RO, SRO-U SYSTEM b

**TITLE: MANUALLY INITIATE CONTAINMENT
ISOLATION**

CANDIDATE: _____

EXAMINER: _____

JOB PERFORMANCE MEASURE
DATA PAGE

Task: All Containment Isolation pathways have at least one isolation valve closed.

Alternate Path: YES

Facility JPM #: PL-OPS-ESF-002J

K/A: 103A2.03 Importance: RO: 3.5 SRO: 3.8

K/A Statement: Ability to (a) predict the impacts of the following malfunctions or operations on the containment systemPhase A and B isolation

Task Standard: Manual Containment Isolation initiated with all pathways having at least one isolation valve closed.

Preferred Evaluation Location: Simulator In Plant

Preferred Evaluation Method: Perform Simulate

References: EOP-4.0, Loss of Coolant Accident
EOP Supplement 6, Checksheet for Containment Isolation and CCW Restoration

Validation Time: 10 minutes Time Critical: NO

Candidate: _____

Time Start: _____ Time Finish: _____

Performance Time: _____ minutes

Performance Rating: SAT _____ UNSAT _____

Comments:

Examiner: _____
Signature

Date: _____

EXAMINER COPY ONLY

Tools/Equipment/Procedures Needed:

- EOP Supplement 6, Checksheet for Containment Isolation and CCW Restoration, Rev. 7

Also see **Simulator Operator Instructions** (last page of this document).

READ TO CANDIDATE

DIRECTION TO CANDIDATE:

I will explain the initial conditions, and state the task to be performed. All control room steps shall be performed for this JPM, including any required communications. I will provide initiating cues and reports on other actions when directed by you. Ensure you indicate to me when you understand your assigned task. To indicate that you have completed your assigned task return the handout sheet I provided you.

INITIAL CONDITIONS:

- A Loss of Coolant Accident has occurred.
- The Reactor has been tripped and EOP 1.0, "Standard Post Trip Actions" have been performed.
- Containment radiation is above 10 R/hr.
- Automatic Containment isolation has not occurred.

INITIATING CUES:

- During performance of EOP 4.0, "Loss of Coolant Accident Recovery", the Control Room Supervisor directs you to manually initiate Containment isolation, referring to Step 13.

Proc. Step	TASK ELEMENT 1	STANDARD	Grade
n/a	Locate EOP-4.0, Step 13	EOP-4.0 Step 13 located.	S U
<p>Comment:</p>			

Proc. Step	TASK ELEMENT 2	STANDARD	Grade
EOP-4.0, 13.a	<p><u>IF</u> ANY of the following conditions exit:</p> <ul style="list-style-type: none"> ▪ Containment pressure is greater than or equal to 4.0 psig ▪ Any operable Containment Radiation Monitor rises to 1×10^1 R/hr, <p><u>THEN PERFORM</u> ALL of the following:</p> <p>a. VERIFY "CIS INITIATED" (EK-1126) is alarmed</p>	<p>"CIS INITIATED" (EK-1126) has not alarmed.</p> <p>Either HIGH RADIATION INITIATE pushbuttons on Panel EC-13 pushed:</p> <ul style="list-style-type: none"> ▪ CHRL-CS ▪ CHRR-CS 	S U
<p>Comment:</p> <p>NOTE: Operator verifies "CIS INITIATED" (EK-1126) is in alarm once pushbutton is pushed, it is permissible, but not necessary, to push both pushbuttons.</p> <p>CRITICAL STEP</p>			

Proc. Step	TASK ELEMENT 3	STANDARD	Grade
EOP-4.0, 13.b	<p><u>IF</u> ANY of the following conditions exit:</p> <ul style="list-style-type: none"> ▪ Containment pressure is greater than or equal to 4.0 psig ▪ Any operable Containment Radiation Monitor rises to 1×10^1 R/hr, <p><u>THEN PERFORM</u> ALL of the following:</p> <p>b. VERIFY Containment Isolation, Refer to EOP Supplement 6</p>	EOP Supplement 6 obtained.	S U
<p>Comment:</p>			

Proc. Step	TASK ELEMENT 4	STANDARD	Grade
Supp.6, 1.0	ENSURE CLOSED all valves unless otherwise specified by the notes.	Verifies that all valves closed as required, checking them off on the checklist, except for the CWRT Vent Valves, CV-1064 and CV-1065.	S U
<p>Comment:</p> <p>NOTE: <i>Determining that the CWRT Vent Valves failed to close is the only action needed to satisfactorily perform this critical step.</i></p> <p><i>Evaluator Cue: If asked by the operator what should be done with CV-1064 and CV-1065, RESPONSE: direct operator to perform EOP Supplement 6.</i></p> <p>CRITICAL STEP</p>			

Proc. Step	TASK ELEMENT 5	STANDARD	Grade
Supp.6, 1.0	ENSURE CLOSED all valves unless otherwise specified by the notes.	CWRT Vent Valves, CV-1064 and CV-1065 have failed to isolate, <ul style="list-style-type: none"> • Handswitches for both CV-1064 and CV-1065 are placed to close. • CV-1064 is verified closed (green light on), CV-1065 remains open (red light on) 	S U
<p>Comment:</p> <p>NOTE: <i>CV-1064 closes, CV-1065 remains open.</i></p> <p>NOTE: <i>Placing the handswitch for CV-1064 to close is the critical component of this step.</i></p> <p>CRITICAL STEP</p>			

Proc. Step	TASK ELEMENT 6	STANDARD	Grade
n/a	Report status of EOP Supplement 6 for Containment Isolation to the CRS.	CRS informed of completion of EOP Supplement 6 and all containment isolation valves are closed, with the exception of CV-1065.	S U
<p>Comment:</p>			

END OF TASK

CANDIDATE CUE SHEET

(TO BE RETURNED TO EXAMINER TO UPON COMPLETION OF TASK)

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INITIATING CUES:

- During performance of EOP 4.0, "Loss of Coolant Accident Recovery", the Control Room Supervisor directs you to manually initiate Containment isolation, referring to Step 13.

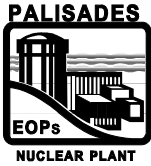
SIMULATOR OPERATOR INSTRUCTIONS**USE IC-79 OR (the following is for more than one JPM):**

- Use IC 17 (100% power).
- Enter malfunction RC04 using Event Trigger 1.
- Trip Reactor and carry out all EOP 1.0 immediate actions.
- **Reduce Final Value of RC04 to 10 after SIAS.**
- Trip MFWPs after SIAS.
- Trip two PCPs at 1300#.
- Verify Containment Radiation is greater than 10R/hr on at least one Containment Area Radiation Monitor.
- Place Letdown Orifice Stop valves to close.
- Allow at least 10% level reduction in each BAST.
- **Freeze and snap into new IC.**

Simulator Setup:

<u>Event Number</u>	<u>Event</u>	<u>Action</u>	<u>WORD DESCRIPTION</u>
2	Zdi1p(731)	Dmf wp03a	Handswitch for CV-1064 in close
3	Zdi1p(696)	Dmf ch05b	Right channel CHR push button
4	Zdi1p(696)	Dmf ch05a	Right channel CHR push button
5	Zdi1p(689)	Dmf ch05a	Left channel CHR push button
6	Zdi1p(689)	Dmf ch05b	Left channel CHR push button
7	Zdi6p(1148)	Dor C161-SAM	Left Ch. H ₂ Remote Selector push-button

Malfunction:	Malfunction Title:	Et:	Delay:	Location:	Ramp:	Value:
RC04	PCS Leak	1	N/A	PIDRC01	N/A	50
CH05A	Auto Initiate Failure Left	N/A	N/A	PIDCH01	N/A	True
CH05B	Auto Initiate Failure Right	N/A	N/A	PIDCH01	N/A	True
RC22	Failed Fuel Element	1	N/A	PIDRC01	N/S	100
WP03A	CV-1064 valve binding	N/A	N/A	PIDWFP01	N/A	100
WP03B	CV-1065 valve binding	N/A	N/A	PIDWFP01	N/A	100
RM07V	RIA-2326 High Radiation	N/A	N/A	PIDRM06	N/A	88
RM07W	RIA-2327 High Radiation	N/A	N/A	PIDRM06	N/A	10
Overrides:	Overrides Title:					
C161-SAM	Left Ch. H ₂ sample light	N/A	N/A	PID20RM1	N/A	OFF
RIA-2327-OUT	Area Monitor, Output Meter	N/A	N/A	PAL20RB4		0.25
RIA-2327-P1	Gas Effluent Monitor, Pen1	N/A	N/A	PAL20RM4	N/A	0.26



PALISADES NUCLEAR PLANT EMERGENCY OPERATING PROCEDURE

Proc No EOP Supplement

Supplement 6

Revision 7

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TITLE: Checksheet For Containment Isolation And CCW Restoration

1.0 ENSURE CLOSED all valves unless otherwise specified by the notes.

Valve	Note	Description	L	R	C
PANEL C-13					
CV-1101		Containment Vent Header			
CV-1806		Containment Purge Exhaust			
CV-1814		Air Room Supply			
CV-1808		Containment Purge Exhaust			
CV-1807		Containment Purge Exhaust			
CV-1813		Air Room Supply			
CV-1805		Containment Purge Exhaust			
CV-1102		Containment Vent Header			
CV-1064		CWRTs Vent			
CV-1044		CWRTs Outlet			
CV-1036		CWRTs Recirc			
CV-1002		PSDT Outlet			
CV-0911	CHP	CCW Return			
HS-0911	CHP, 1	CCW Return H.S. (Key 338)			
CV-1103		Containment Sump Drain			
CV-1104		Containment Sump Drain			
CV-0940	CHP	CCW Return			
HS-0940	CHP, 1	CCW Return H.S. (Key 336)			
CV-1007		PSDT Outlet			
CV-1038		CWRTs Recirc			
CV-1045		CWRTs Outlet			
CV-1065		CWRTs Vent			
CV-0770		S/G 'B' Bottom Blowdown			
CV-0771		S/G 'A' Bottom Blowdown			
CV-0767		S/G 'A' Bottom Blowdown			
CV-0768		S/G/ 'B' Bottom Blowdown			
CV-0738		S/G 'B' Surface Blowdown			
CV-0739		S/G 'A' Surface Blowdown			
CV-0910	CHP	CCW to Containment			
HS-0910	CHP, 1	CCW to Cont. H.S. (Key 337)			
CV-0939		Shield Cooling Surge Tank Fill			
CV-1004		CWRTs Inlet Isol			
CV-1037		CWRTs Recirc Isol			
CV-1358		Nitrogen to Containment			

Valve	Note	Description	L	R	C
PANEL C-13 continued					
CV-1001		PSDT Recirc Isol			
CV-1910	2	Primary System Sample Isol			
CV-1911	2	Primary System Sample Isol			
PANEL C-02					
HS-2003	H/S to Close	Letdown Orifice #1			
HS-2004	H/S to Close	Letdown Orifice #2			
HS-2005	H/S to Close	Letdown Orifice #3			
CV-2009		Letdown Containment Isol			
CV-2083		Controlled Bleed-off Containment Isol			
CV-2099		Controlled Bleed-off Containment Isol			
CV-0155		Quench Tank Spray Valve			
PANEL C-01					
CV-0510	CHP	S/G 'A' MSIV			
CV-0501	CHP	S/G 'B' MSIV			
CV-0701	CHP	S/G 'A' Main Feed Reg Valve			
CV-0703	CHP	S/G 'B' Main Feed Reg Valve			
CV-0735	CHP	S/G 'A' Bypass Feed Reg Valve			
CV-0734	CHP	S/G 'B' Bypass Feed Reg Valve			
PANEL C-11A (BACK)					
SV-2412A	3	Hydrogen Mon. Right Channel			
SV-2412B	3	Hydrogen Mon. Right Channel			
SV-2414A	3	Hydrogen Mon. Right Channel			
SV-2414B	3	Hydrogen Mon. Right Channel			
SV-2413A	3	Hydrogen Mon. Left Channel			
SV-2413B	3	Hydrogen Mon. Left Channel			
SV-2415A	3	Hydrogen Mon. Left Channel			
SV-2415B	3	Hydrogen Mon. Left Channel			

NOTES: L = Left Channel
R = Right Channel
C = Common or required for equipment protection.
CHP = Equipment will only actuate on Containment High Pressure Signal.

1. With CHP, position HS to CLOSE.
2. REFER TO EI-7.0 to bypass CHP and CHR
3. May be open to maintain H2 monitor in service.