

Job Performance Measure "B"

Facility: **Vogtle**

Task No: V-LO-TA-37009

Task Title: Transfer ECCS Pumps To Cold Leg Recirculation

JPM No: V-NRC-JP-19013-HL17

K/A Reference: 006A4.05 RO 3.9 SRO 3.8

Examinee: _____ NRC Examiner: _____

Facility Evaluator: _____ Date: _____

Method of testing:

Simulated Performance _____ Actual Performance _____

Classroom _____ Simulator _____ 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.

THIS IS A TIME CRITICAL JPM

Initial Conditions: A large break LOCA has occurred.

Initiating Cue: The SS has directed you to, "Transfer the ECCS pumps to cold leg recirculation using 19013-C".

Task Standard: Determines Cold Leg recirculation flow path **NOT** available per 19013-C, Attachment A and a transition is required to 19111-C, Loss of Emergency Coolant Recirculation. (FSAR time allows 6.5 minutes from RWST Lo-Lo level set-point to the closure of RHR discharge to CCP suction valves (HV-8804A & B) to ensure an available suction source to all ECCS pumps).

Required Materials: 19013-C, "Transfer to Cold Leg Recirculation" Ver. 29.0.

General References: VEGP-FSAR-6, Table 6.3.2-7

Time Critical Task: Yes

Validation Time: 6 minutes

SIMULATOR SETUP:

Simulator Setup:

1. Reset to IC # 212 for HL-17 NRC Exam.

Simulator Setup from Scratch:

If new setup is required, then perform the following:

1. Reset to IC 14 (MOL 100%).
2. Override HV-8812A to the **OPEN** position.
3. Override HV-8811B to the **SHUT** position.
4. Insert malfunction RC03C at 100% (DBA LOCA)
5. Trip all RCPs
6. Reset SI
7. Allow simulation to run until RWST is 28% or after CNMT Emergency Sump levels are ≥ 14 inches, set RF: TK02 = 28% (RWST)
8. Ensure HV-8811A is **FULL OPEN**
9. Acknowledge/Reset alarms
10. Freeze Simulator

Setup time: 18 minutes

Performance Information

Critical steps denoted with an asterisk

START TIME FOR TIME CRITICAL _____

Reviews NOTES prior to step 1 regarding FRP implementation, steps 1 – 12 performance without delay, and RWST inventory time limits.

Standard: N/A

Comment:

Reviews CAUTION prior to step 1 regarding offsite power loss after SI reset.

Standard: N/A

Comment:

Step 1 Verifies SI reset.

Standard: Candidate verifies BPLP window 1.5 (white Auto SI blocked light) - ON

BPLP window 1.4 (red SI Actuated light) - OFF

Comment:

Step 2 Checks CNMT Emergency Sump levels \geq 13.5 inches.

Standard: Candidate checks both LI-764 and LI-765 \geq 13.5 inches
(should be ~ 60+ inches)

Comment:

Step # 3 Initiate **ATTACHMENT A** to align ECCS Pumps to the Cold Leg
Recirculation flow path and continue with Step 4.

**CUE: “The SS will continue with step 4 while you
perform Attachment A”.**

Standard: Candidate initiates ATTACHMENT A.

Comment:

ATTACHMENT A
COLD LEG RECIRCULATION VALVE ALIGNMENT

- Step 1 Check CCW cooling for RHR heat exchangers.
- a. CCW pumps - 2 running in each train.
 - b. CCW pumps discharge pressures and flows - NORMAL.
 - c. NSCW cooling for CCW heat exchangers:
 - NCSW Pumps - TWO RUNNING EACH TRAIN.
 - NSCW CLG TOWER Fans - FOUR IN AUTO EACH TRAIN.

Standard: Candidate determines the following:

2 CCW **and** 2 NSCW pumps per train

Red lights - ON
Green lights - OFF
Amber lights - OFF

CCW pressures – in green bands (PI-1874 and PI-1875 ~ 90 psig).

CCW flows – in green bands (FI-1876 and FI-1877 ~ 9500 gpm).

NSCW Cooling Tower Fans, all 8 hand switches in AUTO.

Comment:

Step 2 Align RHR Pump A flow path:

a. Check RHR Pump A - RUNNING.

Standard: Candidate checks HS-0620:

Red light - ON,
Green light - OFF
Amber light - OFF

Comment:

Step 2.b Check CNMT SUMP TO RHR PMP-A SUCTION HV-8811A - OPEN.

Standard: Candidate checks HS-8811A: Red light - ON,
Green light - OFF.

Comment:

Step 2.c Close RWST TO RHR PMP-A SUCTION HV-8812A.

Standard: Attempts to close HV-8812A by turning hand switch counter clockwise to the left.
Candidate determines HV-8812A will **NOT** close.

Red light remains - ON
Green light remains - OFF

Comment:

***Step 2.c RNO - IF HV-8812A will not close, THEN stop RHR Pump A.**

Standard: Candidate places RHR pump A hand switch HS-0620 to STOP.

Green light - ON
Red light - OFF
Amber light - OFF

Goes to step 3.

Comment:

Step 3 Align RHR Pump B flow path:

a. Check RHR Pump B – RUNNING.

Standard: Candidate checks HS-0621:

Red light - ON
Green light - OFF
Amber light - OFF

Comment:

Step 3.b Check CNMT SUMP TO RHR PMP-B SUCTION HV-8811B – OPEN.

Standard: Candidate determines HV-8811B is CLOSED.

Green light - ON
Red light - OFF

Comment:

RNO *Step 3.b IF HV-8811B is NOT open, THEN perform the following:

- 1. Stop RHR Pump B.**

STOP TIME FOR TIME CRITICAL_____

Standard: Candidate places RHR pump B hand switch HS-0621 to STOP. (FSAR time allows 6.5 minutes from RWST Lo-Lo level set-point to the closure of RHR discharge to CCP suction valves (HV-8804A & B) to ensure an available suction source to all ECCS pumps).

Green light - ON
Red light - OFF
Amber light - OFF

Comment:

RNO 3.b.2 Close RWST TO RHR PMP-B SUCTION HV-8812B.

Standard: Candidate places HS-8812B to the CLOSE position.

Green light - ON
Red light - OFF

Comment:

RNO 3.b.3 Open HV-8811B.

Standard: Attempts to open HV-8811B by placing rotating hand switch clock wise to open.

Candidate Determines HV-8811B will **NOT** open.

Red light remains - OFF
Green light remains - ON

Comment:

RNO 3.b.4 Start RHR Pump B.

Standard: Does **NOT** start RHR pump B which has no suction source.

NOTE: If candidate starts RHR pump B, the step would become critical and be evaluated as **UNSAT**.

CUE: If SS is notified No RHR pumps available, “SS acknowledges the report.”

Comment:

RNO 3.b.5 Go to Step 3.d.

Standard: Goes to step 3.d.

Comment:

Step 3.d Check RHR PMP-B TO COLD LEG 3&4 ISO VLV HV-8809B – OPEN.

Standard: Candidate checks HS-8809B:

Red light - ON
Green light - OFF

Comment:

Step 3.e Check RHR Heat Exchanger B flow indicator FI-619A - GREATER THAN 500 GPM.

Standard: Candidate determines on FI-0619A that RHR flow is < 500 gpm (~ 0 gpm).

Comment:

RNO *Step 3.e IF no RHR Pump is delivering CNMT Sump water to its discharge header, THEN go to 19111-C, ECA-1.1 LOSS OF EMERGENCY COOLANT RECIRCULATION.

Standard: Candidate determines a transition to 19111-C is required and informs the SS.

CUE: “The SS will initiate 19111-C, ECA-1.1 Loss of Emergency Coolant Recirculation”. Another operator will perform the actions of 19111-C”.

Comment:

Terminating cue: Student returns initiating cue sheet

Verification of Completion

Job Performance Measure No. V-LO-JP-19013-HL17

Examinee's Name:

Examiner's Name:

Date Performed:

Number of Attempts:

Time to Complete:

Question Documentation:

Question: _____

Response: _____

Result: Satisfactory/Unsatisfactory

Examiner's signature and date: _____

THIS IS A TIME CRITICAL JPM

Initial Conditions: A large break LOCA has occurred.

Initiating Cue: The SS has directed you to, "Transfer the ECCS pumps to cold leg recirculation using 19013-C".