

# **V.C. SUMMER NUCLEAR STATION**

## **NRC JOB PERFORMANCE MEASURE**

**JPSF-026**

**START A REACTOR COOLANT PUMP (NRC)**

**Revision No. 0**

A/12

# START A REACTOR COOLANT PUMP (NRC)

TRAINEE \_\_\_\_\_ EVALUATOR \_\_\_\_\_

EVALUATOR SIGNATURE \_\_\_\_\_ DATE \_\_\_\_\_

EVALUATION METHOD:      PERFORM  
EVALUATION LOCATION:    SIMULATOR

ESTIMATED TIME:            20.0 MINUTES                      TIME STARTED: \_\_\_\_\_

10CFR55.45 (a) 2      MANIPULATE THE CONSOLE CONTROLS AS REQUIRED  
TO OPERATE THE FACILITY BETWEEN SHUTDOWN  
AND DESIGNATED POWER LEVELS

TIME CRITICAL:    No                      FAULTED JPM:    No

TRAINEE PERFORMANCE:    SATISFACTORY \_\_\_\_\_ UNSATISFACTORY \_\_\_\_\_

## READ TO OPERATOR:

WHEN I TELL YOU TO BEGIN, YOU ARE TO PERFORM THE ACTIONS AS DIRECTED IN THE INITIATING CUES. I WILL DESCRIBE GENERAL CONDITIONS UNDER WHICH THIS TASK IS TO BE PERFORMED AND PROVIDE THE NECESSARY TOOLS WITH WHICH TO PERFORM THIS TASK. BEFORE STARTING, 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. 1. The plant is in cold shutdown with a solid pressurizer and all RCPs secured.
2. 2. Pressure control is being accomplished using letdown.
3. 3. The PRT is filled and vented per SOP-101, Section IV.
4. 4. Personnel are on station to monitor the oil level during the RCP start.

## TOOLS AND EQUIPMENT NEEDED:

NONE

## REFERENCED DOCUMENTS:

1. SOP\*101                      REACTOR COOLANT SYSTEM

## REV DATE

10/29/97

START A REACTOR COOLANT PUMP (NRC)

**TASK STANDARDS:**

1. RCP 'A' started with flow verified.

**INITIATING CUES:**

1. CRS directs NROATC to start 'A' RCP to begin plant heatup per SOP-101, Section III.A.

**TERMINATING CUES:**

1. The 'A' RCP is running and its associated oil lift pump secured.

**SAFETY CONSIDERATIONS:**

NONE

# JOB PERFORMANCE MEASURE CHECKLIST

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

## PERFORMANCE CHECKLIST:

SAT. UNSAT.

### STEP

### STANDARD

S 1. Verifies all precautions/initial conditions to start "A" RCP are met. *pot*

Notes seal injection flow < 6 gpm, RCS pressure < 325 psig and 'A' RCP #1 Seal D/P < 200 psid.

*ATTACHMENT SOP 101*

NOTE 2: Increasing RCS pressure to > 325 psid should also increase #1 seal D/P to > 200 psid.

### STEP

### STANDARD

\*2. Increases RCS pressure to > 325 psig.

Throttles HCV-142 to increase RCS pressure > 325 psig.

COMMENTS: \_\_\_\_\_

### STEP

### STANDARD

\*3. Raises seal injection flow to specifications.

Throttles HCV-186 to increase seal injection flow to between 6 gpm and 13 gpm.

COMMENTS: \_\_\_\_\_

### STEP

### STANDARD

\*4. Places Low Pressure Letdown in manual.

Places PCV-145 controller in MAN.

COMMENTS: \_\_\_\_\_

# JOB PERFORMANCE MEASURE CHECKLIST

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

## PERFORMANCE CHECKLIST:

SAT.   UNSAT.

### STEP

### STANDARD

5. Verify PCV-444D, PZR SPRAY is in manual and closed.

PCV-444D controller is in MANUAL with demand signal at 0% and closed light is illuminated.

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### STEP

### STANDARD

S\*6. Start Oil Lift pump and allow to run for 2 minutes.

XPP-0087A, A OIL LIFT PP, indicates ON and waits 2 minutes.

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COMMENTS: \_\_\_\_\_

NOTE 7: RCP A #1 SL LKOFF FLO HI/LO may be in alarm.

### STEP

### STANDARD

7. Verify annunciators are clear.

The following annunciators are not in alarm for RCP 'A' LIFT PP PRESS LO, STNDPIP LVL HI/LO, UP OIL RESVR LVL HI/LO, LOW OIL RESVR LVL HI/LO, #1 SL DELTA P LO, #1 SL LKOFF FLO HI/LO, #1 SL INJ FLO LO

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NOTE 8: Prompt student that 2 minutes has expired in order to expedite the JPM.

### STEP

### STANDARD

S\*8. Start RCP "A"

XPP-0030A, PUMP A, indicates red light ON, green light OFF

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COMMENTS: \_\_\_\_\_

# JOB PERFORMANCE MEASURE CHECKLIST

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

## PERFORMANCE CHECKLIST:

SAT.   UNSAT.

### STEP

### STANDARD

S 9. Observe the locked rotor LED display for first 17 seconds of RCP startup.

Observes that the locked rotor LED does not illuminate during first 17 seconds of pump start on XCP-6090.

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### STEP

### STANDARD

10 Verify loop "A" RCS flow

Verifies loop "A" RCS flow increasing on FI-414, 415, 416.

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### STEP

### STANDARD

11 Stop XPP-0087A "A" oil lift at least one minute after start of RCP "A".

XPP-0087A, A OIL LIFT PP indicate OFF > one minute after pump start.

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Examiner Stops JPM At This Point

TIME STOPPED \_\_\_\_\_

## GENERAL COMMENTS:

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START A REACTOR COOLANT PUMP (NRC)

**NRC KA REFERENCES:**

<u>KA NUMBER</u>		<u>IMPORTANCE</u> <u>RO</u>	<u>FACTOR</u> <u>SRO</u>
003000.A3.04	Ability to monitor automatic operation of the RCP including RCS flow.	3.6	3.6