

V.C. SUMMER NUCLEAR STATION

NRC JOB PERFORMANCE MEASURE

JPS-090

CALCULATE SUBCOOLING MARGIN (NRC)

Revision No. 0

A/S

CALCULATE SUBCOOLING MARGIN (NRC)

TRAINEE _____ EVALUATOR _____

EVALUATOR SIGNATURE _____ DATE _____

EVALUATION METHOD: PERFORM
EVALUATION LOCATION: SIMULATOR

ESTIMATED TIME: 10.0 MINUTES TIME STARTED: _____

10CFR55.41 (b)14 PRINCIPLES OF HEAT TRANSFER THERMODYNAMICS
 AND FLUID MECHANICS

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. The plant was at 100% power when a loss of service power occurred.
2. The crew has taken appropriate actions of EOP-1.0 and 1.1.
3. Management has directed a Natural Circulation Cooldown per EOP-1.3.
4. The crew is verifying subcooling per step 10 of EOP-1.3.
5. PT-402 has failed low and PT-403 indication is unreliable.

TOOLS AND EQUIPMENT NEEDED:

NONE

REFERENCED DOCUMENTS:

1. EOP*1.3 NATURAL CIRCULATION COOLDOWN

REV DATE

11/17/94

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TASK STANDARDS:

1. Student calculates subcooling margin of 105°F ($\pm 2^\circ\text{F}$).

INITIATING CUES:

1. The CRS directs you to calculate subcooling margin due to the problems with PT-402 and PT-403.

TERMINATING CUES:

1. Subcooling margin is calculated.

SAFETY CONSIDERATIONS:

NONE

JOB PERFORMANCE MEASURE CHECKLIST

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(S) DENOTES SEQUENCED ELEMENT

(*) DENOTES CRITICAL ELEMENT

PERFORMANCE CHECKLIST:

SAT. UNSAT.

STEP

STANDARD

*1. Determines pressure to calculate subcooling margin

Uses pressurizer pressure of 2200 psia (± 10 psia).

COMMENTS: _____

STEP

STANDARD

*2. Determines RCS temperature.

Determines RCS temperature from RCS Thot indication or Core Exit T/C indications of 544°F (± 1 °F).

COMMENTS: _____

STEP

STANDARD

S*3. Determines subcooling margin.

Using steam tables, determines subcooling margin of 105°F (± 2 °F).

COMMENTS: _____

Examiner Stops JPM At This Point

TIME STOPPED. _____

CALCULATE SUBCOOLING MARGIN (NRC)

GENERAL COMMENTS:

NRC KA REFERENCES:

<u>KA NUMBER</u>		<u>IMPORTANCE</u>	<u>FACTOR</u>
		<u>RO</u>	<u>SRO</u>
000074.EA2.01	Ability to determine subcooling margin.	4.6	4.9