PSEG NUCLEAR L.L.C.
SALEM/OPERATIONS

SC.OP-DL.ZZ-0011(Q) - Rev. 9

REACTOR COOLANT SYSTEM HEATUP/COOLDOWN LOG

A. Biennial Review performed: Yes___ No_✓_
B. Change Packages and affected document numbers incorporated into this revision: None
C. OTSC incorporated into this revision: None

REVISION SUMMARY:

♦ The following changes are related to the same order and editorial in nature as described in AD-AA-101. Both changes previously approved in procedures S1/2.OP-ST.RC-0008(Q) and S1/2.OP-SO.PZR-0005(Q). **(70091414/0010)**

1. 2.2 NOTE – Added note to alert personnel that, when using Auxiliary Spray, the potential exists to increase in 13/23 RCS Hot Leg temperature with the outsurge. This is due to the possibility that an outsurge from the pressurizer may affect the indicated 13/23 Loop Hot Leg temperature indication.

2. 2.3 – Added step to state that during RCS heatup evolutions, and all RCPs are out-of-service, then the inservice RHR Hx Inlet temperature should be used.

IMPLEMENTATION REQUIREMENTS

Effective Date: 1/29/09

♦ None

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1.0 PURPOSE

To record the temperature and pressure of the Reactor Coolant System (RCS) during heatup, cooldown, and inservice leak and hydrostatic testing operations to document compliance with the requirements of Technical Specification 4.4.9.1.1 for Unit 1 and 4.4.10.1.1 for Unit 2.

2.0 SCOPE

2.1 The requirements for this log are as specified in the following Operations Procedures:

- S1(2).OP-IO.ZZ-0002, COLD SHUTDOWN TO HOT STANDBY
- S1(2).OP-IO.ZZ-0006, HOT STANDBY TO COLD SHUTDOWN

NOTE

When using Auxiliary Spray, the potential exists to increase in 13/23 RCS Hot Leg temperature with an outsurge. Therefore use of 13/23 RCS Hot Leg as the hottest hot leg should be suspect while on Auxiliary Spray.

2.2 During RCS heatup evolutions, the hottest wide range Hot Leg temperature should be used. If the hottest wide range Hot Leg temperature can not be used, then the hottest incore thermocouple (T/C) temperature should be used.

2.3 During RCS heatup evolutions, and all RCPs are out-of-service, RHR HX Inlet Temperature should be used on operating RHR Loop.

Plant Computer Point T0630A (RHR Loop 11/21 operating)

Plant Computer Point T0631A (RHR Loop 12/22 operating)

2.4 During RCS cooldown evolutions, the coldest Cold Leg temperature should be used when any RCP is in-service or the RHR HX Outlet temperature should be used when all RCPs are out-of-service.

2.5 The readings shall be placed on the Plant Computer Trend and monitored at least once every 30 minutes or plotted directly onto the log at least once every 30 minutes to verify compliance with the requirements of Technical Specification 4.4.9.1.1 for Unit 1 and 4.4.10.1.1 for Unit 2.

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NOTE

When attempting to achieve cooldown rates approaching the maximum allowed cooldown rate, more frequent monitoring (every 10 minutes) shall be performed to ensure the maximum allowable cooldown rate is not exceeded.

2.6 When plotting a temperature point onto the log, write the RCS pressure directly above that plotted temperature point

2.7 S1(2).OP-TM.ZZ-0001(Q), RCS Pressure-Temperature Curves, shall be referenced during heatup and cooldown evolutions as a guide for Technical Specification compliance.

2.8 The heatup rate is limited to 100 °F/HR. The cooldown rate is limited to 100 °F/HR above 200 °F and then decreases to less than or equal to 50 °F/HR below 200 °F.

2.9 During hydrostatic testing operations above system design pressure, the maximum temperature change is limited to less than or equal to 5 °F in any one hour period.

2.10 When the RCS heatup/cooldown evolution is complete, the operator should print the computer trend (or sign the log) and place in the Control Room file along with the other logs for that day.

2.11 An expanded log for cooldown is available to provide additional room when frequent monitoring is performed.

END OF PROCEDURE

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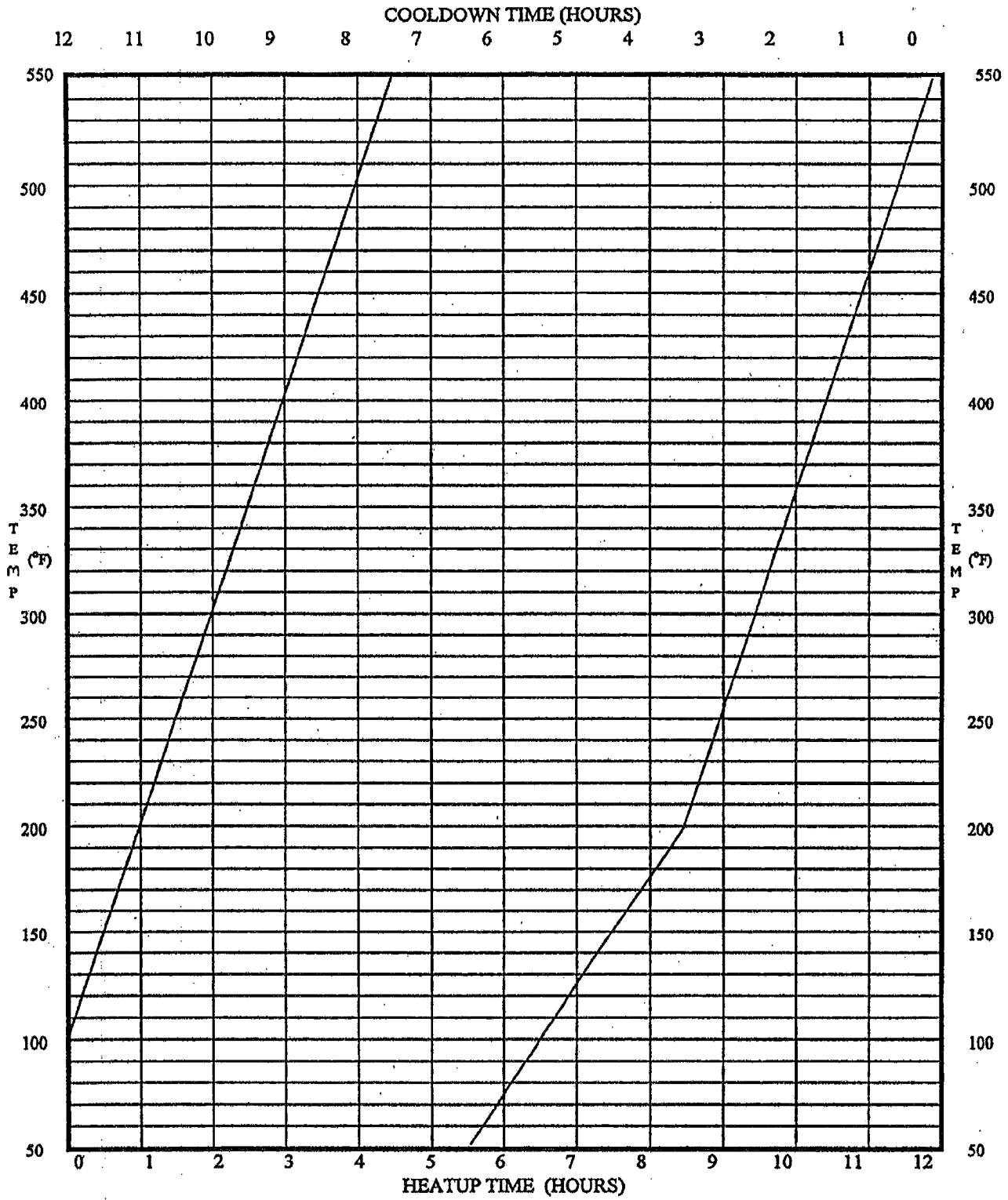
RCS HEATUP/COOLDOWN LOG

CONTROL OPERATOR _____ DATE: _____ UNIT: _____



1) Record HU/CD rates every 30 min. for normal cooldown (<25°F/hr), and every 10 min. for rapid cooldown.
2) Record RCS pressure at time of taking temperature directly above temperature point.
3) Ensure pressure/temperature point is within curve limits in S1(2).OP-TM.ZZ-0001(Q).

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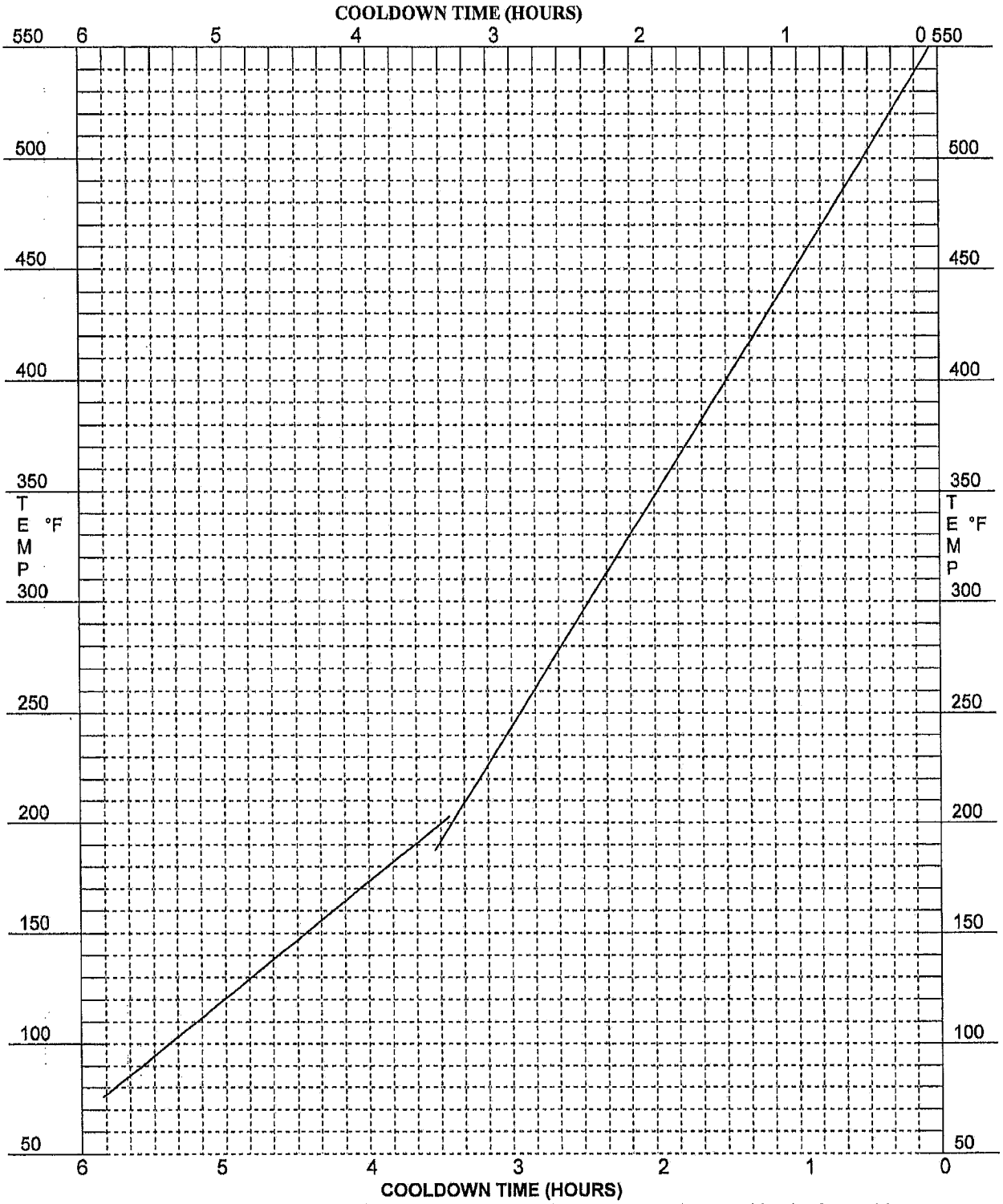
EXPANDED LOG FOR COOLDOWN

CONTROL OPERATOR_____ DATE: _____ UNIT: _____



1) Record HU/CD rates every 30 min. for normal cooldown (<25°F/hr), and every 10 min. for rapid cooldown.
2) Record RCS pressure at time of taking temperature directly above temperature point.
3) Ensure pressure/temperature point is within curve limits in S1(2).OP-TM.ZZ-0001(Q).

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