

NRC

REV. 0
DATE 4/15/79

EMERGENCY PROCEDURE EP-13

TITLE: Loss of RCS Temperature Indication

APPROVALS: FORC (Chairman) [Signature] DATE 4/12/79

UNIT SUPT.: [Signature] DATE 4/21/79

B&W [Signature] DATE 4/25/79 NRC [Signature] DATE 4/23/79

ALARA [Signature] DATE 4/23/79 [Signature] DATE 4/25/79

EP-13 LOSS OF RCS
TEMPERATURE INDICATION

The purpose of this procedure is to provide alternate means of monitoring Reactor Coolant System Temperatures, in the event that normal RCS temperature indication is lost.

1.0 Symptoms

- 1.1 Wide range temperature indications on console indicate high/low temperatures.
- 1.2 RCS flow rate indication change due to loss of temperature compensation.

2.0 Immediate Actions

2.1 Automatic NONE

2.2 Manual

- 2.2.1 Select the two highest reading valid in-core thermocouples for readout on the CRT (Computer points 493 thru 544).
- 2.2.2 Select backup temperature sensing points from the alternate list in Table 1. Temperature inputs to MMI or MI/RPS systems should be given higher priority for alternate use with the recommended order for use as shown in the Table 1 list.

NOTE 1 - To ensure the alternate points are acceptable for this temperature monitoring application, the RTD bridges may have to be changed from narrow to wide range indication.

NOTE 2 - Accuracy of readouts may be improved by switching an ohmmeter and comparing the resistance to the RTD curves. Curves (Tables) are found in the Rosemount Cal Curve Book in the Unit 2 Instrument shop (see attached Table 1).

3.0 Long Term Action

- 3.1 Continue the present mode of primary system cooling using the incore thermocouples and backup TE's listed in Table 1 to monitor for any changes in RCS temperature.
- 3.2 Adjust core thermocouple computer points to alarm at 75°F above their current readings.

TABLE 1

INSTRUMENT NO.

RC4A - TE 2	T _H Loop A
RC4A - TE 3	T _H Loop A
RC4B - TE 2	T _H Loop B
RC4B - TE 3	T _H Loop B
RC5A - TE 2	T _C RCP 1A Suction
PC5A - TE 4	T _C RCP 2A Suction
RCSB - TE 2	T _C RCP 1B Suction
RCSB - TE 4	T _C RCP 2B Suction
RC - TE 9	PZR Surge Line
RC4A - TE 1	T _H Loop A
RC4A - TE 4	T _H Loop A
RC4B - TE 1	T _H Loop B
RC4B - TE 4	T _H Loop B
RC5A - TE 1	T _C RCP 1A Suction
RC5A - TE 3	T _C RCP 2A Suction
RC5B - TE 1	T _C RCP 1B Suction
RC5B - TE 3	T _C RCP 2B Suction
RC15A - TE 1	T _H Loop A
RC15B - TE 1	T _H Loop B
RC15A - TE 2	T _C RCP 1A Suction
RC15B - TE 2	T _C RCP 1B Suction
RC15A - TE 3	T _C RCP 2A Suction
RC15B - TE 3	T _C RCP 2B Suction
PC - TE 11	PZR Spray Line

TABLE 1 - CONTINUED

DH6 - TE 1	DH pump 1A Suction
DH6 - TE 2	DH pump 1B Suction
SP3A - TE 1	"A" OTSG Steam Temperature
SP3A - TE2	"A" OTSG Steam Temperature
SP3B - TE1	"B" OTSG Steam Temperature
SP3B - TE2	"B" OTSG Steam Temperature

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1.0 Symptoms

- 1.1 Wide range temperature indications on console indicate high/low temperatures.
- 1.2 RCS flow rate indication change due to loss of temperature compensation.

2.0 Immediate Actions

2.1 Automatic

NONE

2.2 Manual

- 2.2.1 Select 2 highest reading valid in-core thermocouples for readout on the CRT (Computer points 493 thru 544).
- 2.2.2 Select Back-up points from Steam Generator Primary System Temperature Recorder, YM-TR-1922 Pnl 10

Note: Accuracy of readouts may be improved by switching an ohmmeter and comparing the resistance to the RTD curves. Curves (Tables) are found in the Rosemount Cal Curve Book in the Unit 2 Instrument shop (see attached Table 1).

3.0 Long Term Action

- 3.1 Continue the present mode of primary system cooling using the incore thermocouples and backup TE's listed in Table 1 to monitor for any changes in RCS temperature.
- 3.2 Adjust core thermocouple computer points to alarm at 75°F above their current readings.

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TABLE 1

<u>PT.</u>	<u>DESCRIPTION</u>	<u>INST. NO.</u>
5	RC to OTSG 1B	RC15B-TE1
6	RC to OTSG 1A	RC15A-TE1
8	RC Pump Suction 1B	RC15B-TE2
9	RC Pump Suction 2B	RC15B-TE3
	RC Pump Suction 1A	RC15A-TE2
11	RC Pump Suction 2A	RC15A-TE3

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