LICENSEE EVENT REPORT

/0/1/	CONTROL BIOCK $/$ / / / / (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION) $\frac{/V/A/N/A/S/2}{(2)} \frac{/0/0/-/0/0/0/0/-/0/0}{(3)} \frac{/4/1/1/1/1}{(4)} \frac{/}{/} (5)$ LICENSEE CODE LICENSE NUMBER LICENSE TYPE CAT
/0/1/	REPORT /L/ (6) /0/5/0/0/0/3/3/9/ (7) /0/8/2/2/8/2/ (8) /0/9/1/4/8/2/ (9) SOURCE /L/ (6) /0/5/0/0/0/3/3/9/ (7) /0/8/2/2/8/2/ (8) /0/9/1/4/8/2/ (9)
	DOCKET NUMBER EVENT DATE REPORT DATE EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)
/0/2/	/ On August 22, 1982, with Unit No. 2 in Mode 3, one of the two reactor coolant /
/0/3/	/ system subcooling margin monitors failed. The redundant subcooling monitor and /
/0/4/	/ the other accident monitoring instrumentation were operable; therefore, the /
/0/5/	/ health and safety of the general public were not affected. This event is within /
/0/6/	/ the LCO for T.S. 3.3.3.6 and reportable pursuant to T.S. 6.9.1.9.b. /
10/7/	//
/0/8/	1
	SYSTEM CAUSE CAUSE COMP. VALVE CODE CODE SUBCODE COMPONENT CODE SUBCODE SUBCODE
/0/9/	/I/D/ (11) /E/ (12) /X/ (13) /I/N/S/T/R/U/ (14) /Y/ (15) /Z/ (16) SEQUENTIAL OCCURRENCE REPORT REVISION
	LER/RO EVENT YEAR REPORT NO. CODE TYPE NO.
(17)	REPORT NUMBER /8/2/ /-/ /0/5/2/ /-/ /0/3/ /L/ /-/ /0/
ACTION	FUTURE EFFECT SHUTDOWN ATTACHMENT NPRD-4 PRIME COMP. COMPONENT
TAKEN	ACTION ON PLANT METHOD HOURS SUBMITTED FORM SUB. SUPPLIER MANUFACTURER
/x/ (18)	$\frac{Z}{(19)} \frac{Z}{(20)} \frac{Z}{(21)} \frac{I}{(20)} \frac{I}{(21)} \frac{I}{(20)} \frac{I}{(22)} \frac{I}{(21)} \frac{I}{(23)} \frac{I}{(24)} \frac{I}{(24)} \frac{I}{(25)} \frac{I}{(26)} \frac{I}{(26)}$
CAU	SE DESCRIPTION AND CORRECTIVE ACTIONS (27)
/1/0/	SE DESCRIPTION AND CORRECTIVE ACTIONS (27) / A circuit that is designed to reset the processor in the subcooling monitor /
/1/0/ /1/1/	/ A circuit that is designed to reset the processor in the subcooling monitor /
/1/0/ /1/1/	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a /
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/	/ A circuit that is designed to reset the processor in the subcooling monitor / caused the monitor to alarm. The failure was believed to be initiated by a / loose connector on a printed circuit board. The circuit was reset and operabili-/ ty was verified. /
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / / CILITY METHOD OF
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA	/ A circuit that is designed to reset the processor in the subcooling monitor / caused the monitor to alarm. The failure was believed to be initiated by a / loose connector on a printed circuit board. The circuit was reset and operabili-/ ty was verified. /
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / METHOD OF TATUS %POWER OTHER STATUS (30) DISCOVERY DISCOVERY DESCRIPTION (32) //G/ (28) /0/0/0/ (29) / NA / (31) / Operator Observation / CCTIVITY CONTENT
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / / CILITY METHOD OF TATUS %POWER OTHER STATUS (30) DISCOVERY DISCOVERY DESCRIPTION (32) / (28) / (28) / (29) / NA / (31) / Operator Observation / CCTIVITY CONTENT ELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (36)
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A R	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. // CILITY METHOD OF TATUS %POWER OTHER STATUS (30) DISCOVERY DISCOVERY DESCRIPTION (32) //G/ (28) /0/0/0/ (29) / NA / (31) / Operator Observation / CCTIVITY CONTENT
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A /1/6/ P	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / / CILITY METHOD OF TATUS % POWER OTHER STATUS (30) DISCOVERY DESCRIPTION (32) /G/ (28) /0/0/0/ (29) / NA / (31) / Operator Observation / CCTIVITY CONTENT ELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (36) /Z/ (33) /Z/ (34) / NA / / NA / ERSONNEL EXPOSURES UMBER TYPE DESCRIPTION (39)
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA \$ /1/5/ A /1/6/ P /1/7/ /P	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / / CILITY METHOD OF TATUS %POWER OTHER STATUS (30) DISCOVERY DESCRIPTION (32) / (28) / (0)/0/0/ (29) / NA / (31) / Operator Observation / CCTIVITY CONTENT ELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (36) / Z/ (33) / Z/ (34) / NA / NA / NA / ERSONNEL EXPOSURES UMBER TYPE DESCRIPTION (39) 0/0/0/ (37) / Z/ (38) / NA / N
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A /1/6/ P N /1/7/ / P	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / / CILITY METHOD OF TATUS %POWER OTHER STATUS (30) DISCOVERY DISCOVERY DESCRIPTION (32) / G/ (28) /0/0/0/ (29) / NA / (31) / Operator Observation / CCTIVITY CONTENT ELEASED OF RELEASE AMOUNT OF ACTIVITY (35) LOCATION OF RELEASE (36) / Z/ (33) / Z/ (34) / NA / NA / NA / ERSONNEL EXPOSURES UMBER TYPE DESCRIPTION (39) 0/0/0/ (37) /Z/ (38) / NA / ERSONNEL INJURIES UMBER DESCRIPTION (41)
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A /1/6/ P /1/7/ / P N/1/8/ /	/_A circuit that is designed to reset the processor in the subcooling monitor / /_caused the monitor to alarm. The failure was believed to be initiated by a / /_loose connector on a printed circuit board. The circuit was reset and operabili-/ /_ty was verified. / /_collity
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A /1/6/ P /1/7/ / P /1/7/ / P	/ A circuit that is designed to reset the processor in the subcooling monitor / caused the monitor to alarm. The failure was believed to be initiated by a / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / CILITY METHOD OF TATUS %POWER OTHER STATUS (30) DISCOVERY DISCOVERY DESCRIPTION (32) ////////////////////////////////////
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A /1/6/ P /1/7/ / P N/1/7/ / P N/1/8/ / I	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / / / / / / / / / / / / / / / / / / /
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A /1/6/ P /1/7/ / P /1/7/ / P /1/8/ / /1/9/	/ A circuit that is designed to reset the processor in the subcooling monitor / caused the monitor to alarm. The failure was believed to be initiated by a / loose connector on a printed circuit board. The circuit was reset and operabili-/ ty was verified. / /
/1/0/ /1/1/ /1/2/ /1/3/ /1/4/ FA S /1/5/ A /1/6/ P /1/7/ / P /1/7/ / P /1/8/ / /1/9/	/ A circuit that is designed to reset the processor in the subcooling monitor / / caused the monitor to alarm. The failure was believed to be initiated by a / / loose connector on a printed circuit board. The circuit was reset and operabili-/ / ty was verified. / / / / / / / / / / / / / / / / / / /

Virginia Electric and Power Company
North Anna Power Station, Unit No. 2 Attachment: 1 of 1
Docket No. 50-339
Attachment to ICR 82-052/03L-0

Description of Event

On August 22, 1982, with Unit No. 2 in Mode 3, one of the reactor coolant system subcooling margin monitors failed. The monitor failed in an alarm condition by illuminating all panel lights on the processor and causing a control room annunciator alarm.

Probable Consequences of Occurrence

The failed subcooling monitor was returned to service within 24 hours. The redundant subcooling monitor and other accident monitoring instrumentation were operable; therefore, the health and safety of the general public were not affected.

Cause of Event

The subcooling monitor was inoperable because an internal circuit locked the processor in the alarm mode. The exact cause of the event is unknown. It is believed that the vertical orientation of the processor has caused the printed circuit boards to sag away from their connectors. A momentary discontinuity at a connector could cause the affected circuit to lockup the processor.

Immediate Corrective Action

The processor was reset and verified to be operable. The connectors were verified to be tight and the processor was put through several cycles to assure that the affected circuit would not lockup again. Operation of the monitor over a two day period did not indicate any further problems.

Scheduled Corrective Action

Engineering is evaluating a modification to the printed circuit board supports to prevent sagging.

Action Taken To Prevent Recurrence

No further actions will be taken until the engineering evaluation is completed.

Generic Implications

All four subcooling monitors (two per unit) are of the same design and mounted identically. Any design modification will apply to both units.