

(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

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ATTACHMENT 1
SURRY POWER STATION, UNIT NO. 1
DOCKET NO: 50-280
REPORT NO: 82-077/03L-0
EVENT DATE: 06-29-82

TITLE OF THE EVENT: PT-1-475 Failed Low

1. DESCRIPTION OF EVENT:

With the Unit at 99% power, the signal from Loop A steam pressure transmitter PT-1-475 failed low. This signal is used to compensate one of two channels of steam flow for Loop A (Channel III steam flow). Therefore the loss of PT-1-475 caused indicated steam flow CH III and one channel of steam flow input to the steam flow/feed flow mismatch logic to fail low. This event is contrary to T.S. Table 3.7.2, and is a degraded mode of operation permitted by T.S.3.7.A. This event is reportable in accordance with T.S.6.6.2.b(2).

2. PROBABLE CONSEQUENCES and STATUS of REDUNDANT EQUIPMENT:

Each steam line is provided with three steam pressure channels. Steam Header pressure greater than line pressure by 120 psi in 2/3 channels, will initiate safety injection in order to mitigate the effects of a main steam line break.

Each steam line is also provided with two pressure compensated steam flow channels. A steam flow/feedwater flow mismatch in any loop, coincident with low steam generator level, will initiate a reactor trip in order to mitigate the effects of a feed line break.

With transmitter PT-1-475 indicating incorrectly, one channel of steam header pressure and one channel of steam flow may not have tripped at the Design Value. Since the redundant channels for steam line pressure, as well as the redundant channel for steam flow remained operable for S/G A, the health and safety of the public were not affected.

3. CAUSE:

The suspected transmitter bench tested satisfactorily. The exact cause for failure could not be determined, but with the transmitter replaced, the problem did not recur.

4. IMMEDIATE CORRECTIVE ACTION:

The Bistables for feedwater less than steam flow and High Differential Pressure (Main Steam Header to Line) for Steam Generator "A" Channel III were placed in trip.

5. SUBSEQUENT CORRECTIVE ACTION:

The suspected transmitter was replaced.

6. ACTION TAKEN TO PREVENT RECURRENCE:

A thorough examination of the instrument loop will be performed at the next scheduled outage.

7. GENERIC IMPLICATIONS:

None.