

FLORIDA POWER & LIGHT COMPANY

April 23, 1975

Mr. Benard C. Rusche, Director
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Dear Mr. Rusche:

ABNORMAL OCCURRENCE NO. 250-75-2
APRIL 23, 1975
OCCURRENCE DATE: APRIL 14, 1975
TURKEY POINT UNIT NO. 3

STEAM GENERATOR PROTECTION SYSTEM
CHANNEL II - LOW-LOW LEVEL COMPARATOR FAILURE

A. CONDITIONS PRIOR TO OCCURRENCE

The reactor was in steady-state power operation at 99.2% reactor power. Steam Generator Protection System Channel II was in the tripped mode to perform a periodic functional test on this channel.

B. DESCRIPTION OF OCCURRENCE

During the performance of the periodic functional test, Channel II low-low level comparator (LC-3-495A) Steam Generator No. 3C did not trip when the input test signal was decreased below the expected trip setpoint (equivalent to 15% level).

C. CAUSE OF OCCURRENCE

Extensive tests of the comparator revealed a failed capacitor in the -15V d.c. instrument power supply. Failure of this capacitor allowed an a.c. signal to be superimposed on the internal d.c. signal in the comparator. This caused the failure of the comparator to trip at the expected setpoint value equivalent to 15% level.

D. ANALYSIS OF OCCURRENCE

The incidents analyzed and presented in the Turkey Point Unit Nos. 3 and 4 Final Safety Analysis Report assume conservative values for instrument error in measuring pressure, time delays associated with tripping functions, and maximum trip setpoints. In these analyses, actuation of any one out of two redundant protection channels will initiate the necessary protective actions.

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Functional test of the two redundant steam generator protection channels I and III demonstrated that both of these protection channels were operable.

Review, analyses, and evaluation of reactor operating conditions during this occurrence concluded that No. 3C Steam Generator and the reactor were protected at all times by the two redundant operable protection channels. Therefore, neither reactor safety nor the health and safety of the public were jeopardized by this occurrence.

E. CORRECTIVE ACTION

The faulty comparator was replaced with a calibrated spare comparator. Functional tests performed after the spare comparator was installed, demonstrated that the comparator performance was satisfactory.

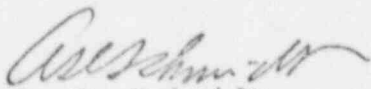
F. FAILURE DATA

Review of operating and failure reports show that a similar failure of a low-low level comparator on Steam Generator No. 3C was identified during a functional test on September 6, 1974. Refer to Abnormal Occurrence No. 250-75-10 for further details.

A single a.c. output comparator failure was identified during a functional test on March 4, 1975. Refer to Abnormal Occurrence No. 251-75-3 "Low Steam Line Pressure Comparator Failure" for further details.

The failed low-low level comparator LC-3-495A, on Steam Generator No. 3C was manufactured by Hagan Control Corporation, dual comparator, a.c. output, model no. 4111082-002.

Very truly yours,



A. D. Schaidt
Vice President
Power Resources

VTC/cpc

cc: Mr. Norman C. Moseley
Jack R. Newman, Esquire