



ROCHESTER GAS AND ELECTRIC CORPORATION • 89 EAST AVENUE, ROCHESTER, N.Y. 14649

GRANDERE GREEN
VICE PRESIDENT

TELEPHONE
AREA CODE 716 546-2700

July 27, 1973

Mr. John F. O'Leary, Director
Directorate of Licensing
U. S. Atomic Energy Commission
Washington, D.C. 20545



Subject: Failure of Safety Injection System
bistable to de-energize on test
R. E. Ginna Nuclear Power Plant, Unit No. 1
Docket No. 50-244

Dear Mr. O'Leary:

In accordance with the Ginna Station Technical Specifications, Section 6.6.2, Paragraph 1.9d, this is to report the abnormal occurrence of July 17, 1973 wherein a bistable in the Reactor Protection System failed to de-energize on signal during the monthly surveillance test.

During the performance of Periodic Test PT5 one side of Bistable LC-427 A/C failed to de-energize on the inserted signal that is equal to five percent pressurizer water level. The procedure is to insert signals into the various components of the protection channel to verify the bistable alarm setpoints. Bistable LC-427 A/C has a single input (pressurizer level) and a dual output (low and high pressurizer levels). The high pressurizer level component performed correctly on the insertion of the appropriate signal.

While holding the channel in the trip mode, the Plant Operations Review Committee met and prepared an emergency maintenance procedure to remove the defective module and to install and test the replacement. The change was effected and the test was satisfactorily completed.

Examination of the bistable indicated that the reference voltage required to establish an operating point for the bistable was interrupted by a "cold solder joint" on the alarm solid state card associated with the pressurizer low level. This joint failure prevented the reference voltage from being applied to the comparing circuit of signal and reference voltage. In normal operation, a reference voltage equal to five percent level is set

8304210476 730727
PDR ADOCK 05000244
S PDR

5831
COPY SENT REGION

DATE July 27, 1973

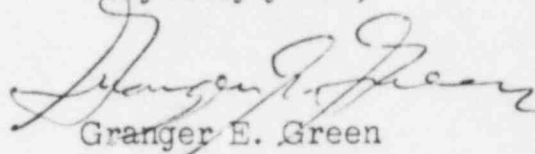
TO Mr. John F. O'Leary

by the dial of the bistable. A signal voltage equal to or greater than five percent energizes this bistable. This is a normal operating condition. The lack of a reference voltage, therefore, did not give the actual signal a reference point to de-energize the bistable.

The safety injection logic calls for a combination of low level and low pressure in the logic train of any of three separate channels. As the other two channels containing this logic operated correctly safety injection would have occurred if necessary.

This is the first failure of this type to have occurred in the Safety Injection Logic System. Due to the redundancy provided with three channels of protection no potential safety problem is known to have existed.

Very truly yours,



Granger E. Green

xc: Mr. James P. O'Reilly