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June 8, 1973



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

Subject: R. E. Ginna Nuclear Power Plant, Unit No. 1
Failure of Undervoltage Relay during monthly surveillance test
Docket No. 50-244

Dear Mr. O'Leary:

During performance of the monthly surveillance procedure PT-5.2, "Undervoltage and Underfrequency Protection," on May 29, 1973, upon opening the knife switches for the solenoid coil of primary undervoltage device 273/11A, it was discovered that the device armature did not drop to assume its de-energized condition. As a result of this failure to operate, the Reactor Trip Undervoltage Protection Signal was not generated from this unit.

This undervoltage device, 273/11A, is one of two for the 11A, 4160 volt bus. At the time of inoperability of device, 273/11A, the redundant relay, 274/11A, did operate satisfactorily, additionally both Reactor Trip Undervoltage Devices for 11B, 4160 volt bus functioned correctly.

Undervoltage Reactor Trip Logic is $\frac{1}{2} + \frac{1}{2}$ from both 4160 volt busses and this capability was not impaired as a result of the one malfunctioning device on 4160 volt bus 11A.

The Plant Operating Review Committee reviewed the occurrence on May 30, 1973 and approved a procedure for removing the undervoltage devices from service to evaluate the cause of inoperability.

Upon inspection of the concerned device (273/11A) a scale accumulation was noted on the armature plunger opposite the area of the upper guide bearing. The scale accumulation was removed and the plunger polished, subsequent bench testing of complete mechanism (plunger mounted in solenoid coil), indicated freedom of movement of the plunger through the guide bearing, without noticeable drag.

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to Mr. John F. O'Leary

Upon returning the device to service, the applicable section of PT-5.2 procedure was performed to verify device operability. As a precautionary measure, using these same procedures, each of the remaining Reactor Trip Undervoltage devices was removed and dismantled for cleanup maintenance. Prior to reinstalling each protective device, a calibration test was applied to insure that the devices would trip when the applied voltage was reduced to the device trip point setting.

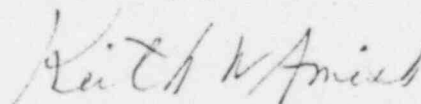
Westinghouse has been contacted and asked to report back to us on any failures of this type relay and their recommendations for preventing it from happening in the future.

The Plant Operations Review Committee met again on June 6, 1973 and reviewed the report of the Rochester Gas and Electric Corp. Electric Meter and Laboratory Dept. on this failure. This is the first failure of this type relay since the plant began operation. They have been trip tested monthly during this period. During our refueling shutdowns in March 1971 and May 1972, the contacts were cleaned, a general inspection was made of the relays and the calibration was confirmed to be at the desired setting. The relay test personnel will continue close surveillance of these relays.

A continuing evaluation of the existing relay and other relays on the market will be made to ascertain that we have the best relay for this application. The RG&E Corp. Electric Meter and Laboratory personnel will report back to the Plant Operations Review Committee with any recommended course of action that could prove to be an improvement.

The Plant Operations Review Committee has recommended that the Westinghouse type SV Bus Undervoltage relay be dismantled and the relay barrel cleaned at each refueling shutdown. Further action will be taken, if necessary, after the Committee receives reports from Westinghouse and the RG&E Corp. Electric Meter and Laboratory Dept.

Very truly yours,



Keith W. Amish

xc:Mr. J. P. O'Reilly