Central Files



UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D. C. 20555

June 23, 1987

NOTE TO: Nine Mile Point 2 File

FROM: Robert Stevens

SUBJECT: NON-CLASS 1E DEVICES CONNECTED TO CLASS 1E SYSTEMS

NRC staff members participated in a telecon with General Electric (GE) and the NMP-2 licensee (Niagara Mohawk) on June 22, 1987 to discuss the possible generic implications associated with the use of non-Class 1E components (fuses, diodes, varistors, resistors, etc.) within Class 1E protection systems and the interface between non-Class 1E devices (meters, recorders, controllers, etc.) and Class 1E circuits within BWRs. This telecon was a follow-up to a meeting held with GE on June 19, 1987 to discuss the subject issue. The results of the telecon which include various follow-up commitments by GE are as follows:

- GE informed the staff that the Neutron Monitoring System (NMS) contains numerous Class 1E/non-Class 1E interfaces with the control room annunciator system, computer system, and rod block monitor system. These interfaces include the use of four (4) categories of isolation devices which will be or are currently supported by analyses but have not been qualification tested through the application of maximum credible fault tests per staff requirements for Class 1E isolation devices. The four categories of isolation devices defined by GE are:
 - (1) Relay (coil-to-contact) isolators
 - (2) Fuse/Zener Diode Combination
 - (3) Buffer Amplifier (low impedance)
 - (4) Fuse/Resistor combination
- GE will confirm when NEDO-10139 was submitted to the staff for review and when possibly approved by the staff. GE will reference Docket for which NEDO was approved if applicable. GE will also define specific areas of NEDO reviewed and approved by the staff in an attempt to resolve issue generically.
- GE, in parallel with NEDO background search, will prepare FEMA related to the NMS specifically for NMP-2 to support interim plant operation until the interface issue is resolved through possible maximum credible fault qualification tests (i.e., if previous NEDO 10139 review by the staff did not resolve issue than GE agreed to perform maximum credible fault tests to qualify the isolators).

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- GE stated that it has already issued a letter to the NMP-2 licensee related to the June 16, 1987 FEMA which ensures that the components and equipment involved are Class 1E except for the Temperature Controller and associated probe (non-Class 1E equipment interface with Class 1E power supply). Niagar: Mohawk stated that this will be resolved prior to full power license issuance by the installation (through coordination with GE) of redundant Class 1E fuses within the power supply circuit to the controller. The end result is that the June 16, 1987 FEMA and associated exemption request will be withdrawn by the licensee.
- GE committed to submit to the NRC a letter addressing the Generic implications of the subject issue as related to all BWRs. Letter should confirm that based on GE's research performed related to the NMP-2 design, there is no need for additional action to be taken for other BWRs. Based on the similarity of all other BWRs to NMP-2, the NMS FEMA and prepared for NMP-2 is all encompassing and, thus, should allow interim operation for all BWRs until the NMS issue is resolved.

I.d. & Lives

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