



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 38 TO PROVISIONAL OPERATING LICENSE NO. DPR-18

ROCHESTER GAS AND ELECTRIC CORPORATION

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION AND DISCUSSION

The criteria and staff positions pertaining to degraded voltage protection were transmitted to Rochester Gas and Electric Corporation (RG&E) by NRC generic letter dated June 3, 1977. In response to this, by letters dated July 21, 1977, November 21, 1977, December 22, 1977, August 3, 1979, December 19, 1979 and September 9, 1980, the licensee proposed certain design modifications and changes to the Technical Specifications. A detailed review and technical evaluation of these proposed modifications and changes to the Technical Specifications was performed by Lawrence Livermore Laboratory (LLL), under contract to the NRC, and with general supervision by NRC staff. This work is reported by LLL in a report, "Technical Evaluation of the Proposed Design Modifications and Technical Specification Changes for the R. E. Ginna Nuclear Power Plant, Unit 1" (attached). We have reviewed this technical evaluation report and concur in its conclusions that the proposed design modification and Technical Specification changes are acceptable.

2.0 PROPOSED CHANGES

The proposed design changes consist of adding two undervoltage relays for each 480 volt Class 1E bus arranged in a 2-out-of-2 coincident logic. The setpoints including time delays have been selected such that a degraded grid condition will not persist long enough to exceed Class 1E equipment ratings, as defined by the equipment manufacturer. The limiting conditions for operation and surveillance requirements for proposed changes are documented in the licensee's proposed Technical Specification.

3.0 EVALUATION CRITERIA

The criteria used by LLL in its technical evaluation of the proposed changes include GDC-17, "Electric Power Systems," of Appendix A to 10 CFR 50; IEEE Standard 279-1971, "Criteria for Protection Systems for Nuclear Power Generating Stations," IEEE Standard 308-1974, "Class 1E Power Systems for Nuclear Power Generating Stations," and the staff positions defined in NRC generic letter to RG&E dated June 3, 1977.

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4.0 SUMMARY

We have reviewed the Lawrence Livermore Laboratory's Technical Evaluation Report and concur in its findings that (1) the proposed modifications will protect the Class 1E equipment and systems from a sustained degraded voltage of the offsite power source, and (2) the proposed changes to the Technical Specifications meet the criteria for periodic testing of protection systems and equipment. Therefore, we conclude that the proposed design modifications and changes to the Technical Specifications are acceptable.

5.0 ENVIRONMENTAL CONSIDERATIONS

We have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact and, pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement, or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

6.0 CONCLUSION

We have concluded, based on the considerations discussed above, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: March 26, 1981

Attached:
Report by Lawrence Livermore
Laboratory (UCID-18691)