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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 53 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

By application notarized July 22, 1982, Rochester Gas and Electric Corporation (RG&E) requested changes to the Technical Specifications appended to Provisional Operating License No. DPR-18 for the R. E. Ginna Nuclear Power Plant. These changes would revise the specifications dealing with the fire protection system operability and surveillance requirements.

2.0 BACKGROUND

The recent use of fire watches and fire watch patrols at the R. E. Ginna Nuclear Power Plant has led Rochester Gas and Electric Corporation (RG&E) to review the Technical Specifications covering the fire protection system. RG&E has found that certain changes to the Technical Specifications would reduce the radiation exposure of their personnel while not reducing the overall effectiveness of the fire protection system. During the review, RG&E also found areas where the specifications could be clarified and have included these changes in their proposal.

3.0 EVALUATION

Operability of the fire detection instrumentation ensures that adequate warning capability is available for the prompt detection of fires. This capability is required in order to detect and locate fires in their early stages. Prompt detection of fires will reduce the potential for damage to safety-related equipment and is an integral element in the overall facility fire protection program.

In the event that a portion of the fire detection instrumentation is inoperable, the establishment of continuous or frequent fire patrols in the affected areas is required to provide detection capability until the inoperable instrumentation is restored to operability.

3.1 The licensee has proposed changes to allow the evacuation of fire watches during emergency conditions which prohibit access to the area. The licensee states that, for example, fire watches/patrols will not be required to enter or remain in areas which may be evacuated temporarily due to high radioactivity concentrations. Other emergency conditions usually result from personnel activities

so that people will have been recently present in the area to detect fires. In any event, emergency conditions will result in a response by people trained to cope with the conditions. Fires will be detected by the health physicists, operators or others responding to the emergnecy. The fire watch/patrol may not be trained to handle conditions other than fire so that greater safety is achieved by excluding them from the area until it is deemed safe to return.

Therefore, the staff finds the evacuation of fire watches under emergency conditions acceptable.

3.2 The licensee has proposed the monitoring of containment air temperature as an alternative to containment inspections each shift when the detection system in the containment is not operable. Containment air temperature will be sensitive to fires involving significant combustible material, for example, reactor coolant pump fires. The more frequent monitoring of air temperature (once per hour) will provide at least as good, if not better, detection of involved fires than does a once per shift inspection. The detection of incipient fires, such as those caused by cable shorts, will be readily, and perhaps more quickly, accomplished by secondary indications of eqiupment malfunctions. The low probability of fires of this type starting in an unoccupied building like the containment does not justify the radiation exposure resulting from once a shift inspections during power operation.

The staff agrees with the licensee that monitoring containment air temperature once per hour at sixteen representative locations is an acceptable alternative to containment entries during power operations.

3.3 The licensee proposed hourly fire watch patrols, along with backup suppression equipment in the zones, to cover areas with inoperable spray, sprinkler on halon systems. The staff concludes that for areas in which redundant equipment or components necessary for safe-shutdown are located, a continuous fire watch must be stationed to act as an "automatic" fire suppression system.

The licensee has agreed with this position and the specifications have been changed to provide a continuous fire watch in areas where redundant equipment or components necessary for safe-shutdown are located. An hourly inspection by a fire watch patrol may be used in other areas. The staff finds this acceptable.

3.4 The licensee has proposed that fire detection instruments and supervised circuits which are inaccessible during plant operation need not be tested during each six month interval. The detection instruments and circuit supervision will, however, be tested at each cold shutdown exceeding 24 hours unless the tests have been performed in the last six months. These changes are in conformance

with standard licensing practices and provide adequate assurance that the systems will function properly. A plant shutdown to test inaccessible equipment is not justified. The extended times between tests will rarely exceed twice the normal inspection interval due to the 12 month refueling cycle at Ginna and thus no significant decrease in operability will result.

Therefore, the staff finds this change to be acceptable.

3.5 The licensee has also proposed several changes that clarify the specifications or reflect the proper types and numbers of instruments recently installed. Since these changes are basically editorial in content the staff finds them to be acceptable.

4.0 SUMMARY

The licensee has proposed changes to certain fire protection system Technical Specifications that they have determined would not reduce the overall effectiveness of the fire protection system. We conclude that the licensee has provided acceptable bases for the proposed fire protection system Technical Specification changes. Therefore we find the proposed modifications to the plant's Technical Specifications to be acceptable.

5.0 ENVIRONMENTAL CONSIDERATION

We have determined that the amendment does not authorize a change in effluent types, increase in total amounts of effluents, or an increase in power level, and will not result in any significant environmental impact. Having made this determination, we have 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 also conclude, 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, does not involve a significant decrease in a safety margin, and does not create the possibility of an accident of a type different from any evaluated previously, 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 the health and safety of the public.

7.0 ACKNOWLEDGEMENTS

The following NRC personnel have contributed to this evaluation:

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