October 20, 1993

Docket No. 50-244

Dr. Robert C. Mecredy
Vice President, Nuclear Production
Rochester Gas and Electric Corporation
89 East Avenue
Rochester, New York 14649

Dear Dr. Mecredy:

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SUBJECT: ISSUANCE OF AMENDMENT NO. 56 TO FACILITY OPERATING LICENSE NO. DPR-18, R. E. GINNA NUCLEAR POWER PLANT (TAC NO. M77516)

The Commission has issued the enclosed Amendment No. 56 to Facility Operating License No. DPR-18 for the R. E. Ginna Nuclear Power Plant. This amendment is in response to your application dated June 1, 1990.

The amendment changes the Technical Specifications requirements similar to the Standard Technical Specifications for Westinghouse pressurized water reactors in specifying time limits when required to reduce power and shut down the plant due to quadrant to average power tilt ratio exceeding 1.12.

A copy of the related Safety Evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly Federal Register notice.

Sincerely,
original signed by
Allen R. Johnson, Project Manager
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:
1. Amendment No. 56 to License No. DPR-18
2. Safety Evaluation

cc w/enclosures:
See next page

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

October 20, 1993

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Vice President, Nuclear Production
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Allen R. Johnson, Project Manager
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See next page

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

ROCHESTER GAS AND ELECTRIC CORPORATION

DOCKET NO. 50-244

R. E. GINNA NUCLEAR POWER PLANT

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 56
License No. DPR-18

1. The Nuclear Regulatory Commission (the Commission or the NRC) has found that:

   A. The application for amendment filed by the Rochester Gas and Electric Corporation (the licensee) dated June 1, 1990, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance: (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and

   E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-~~18~~ ~~is~~ hereby amended to read as follows:

(2). Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 56 , are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of its date of issuance and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

Walter R. Butler

Walter R. Butler, Director
Project Directorate I-3
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical Specifications

Date of Issuance: October 20, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 56

FACILITY OPERATING LICENSE NO. DPR-18

DOCKET NO. 50-244

Replace the following pages of the Appendix A Technical Specifications with the attached pages. The revised pages are identified by Amendment number and contain vertical lines indicating the area of change.

Remove	Insert
3.10-4	3.10-4

limiting values within one day, the Overpower ΔT trip setpoint and the Overtemperature ΔT setpoint shall be similarly reduced.

3.10.2.3 Except for physics tests, if the quadrant to average power tilt ratio exceeds 1.02 but is less than 1.12, then within two hours:

a. Correct the situation, or

b. Determine by measurement the hot channel factors, and apply Specification 3.10.2.2, or

c. Limit power to 75% of rated power.

3.10.2.4 If the quadrant to average power tilt ratio exceeds 1.02 but is less than 1.12 for a sustained period of more than 24 hours without known cause, or if such a tilt recurs intermittently without known cause, the reactor power level shall be restricted so as not to exceed 50% of rated power. If the cause of the tilt is determined, continued operation at a power level consistent with 3.10.2.2 above, shall be permitted.

3.10.2.5 Except for physics test, if the quadrant to average power tilt ratio is 1.12 or greater, within 2 hours either reduce the quadrant to average power tilt ratio to within its limit or reduce power to less than 50% of rated power. Within an additional 4 hours, either reduce the ratio to within its limit or be at hot shutdown. Subsequent operation for the purpose of measuring and correcting the tilt is permitted provided the power level does not exceed 50% of rated power and the Nuclear Overpower Trip setpoint is reduced by 50%.

3.10.2.6 Following any refueling and at least every effective full power month thereafter, flux maps, using the movable detector system, shall be made to confirm that

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 56 TO FACILITY OPERATING LICENSE NO. DPR-18

ROCHESTER GAS AND ELECTRIC CORPORATION

R. E. GINNA NUCLEAR POWER PLANT

DOCKET NO. 50-244

1.0 INTRODUCTION

By letter dated June 1, 1990, the Rochester Gas and Electric Corporation (the licensee) submitted a request for changes to the R. E. Ginna Nuclear Power Plant Technical Specifications (TS). The requested changes would change TS 3.10.2.5 to specify time limits when required to shut down the plant due to quadrant to average power tilt ratio exceeding 1.12.

2.0 EVALUATION

The quadrant power tilt ratio (QPTR) limit ensures that the gross radial power distribution remains consistent with the design values used in the safety analyses. Precise radial power distribution measurements are made during startup testing, after refueling, and periodically during power operation.

The QPTR limiting condition for operation (LCO) precludes core power distributions that violate the following fuel design criteria:

a. During a large break loss of coolant accident, the peak cladding temperature must not exceed 2200 °F (as required by 10 CFR 50.46);

b. During a loss of forced reactor coolant flow accident, there must be at least 95% probability at the 95% confidence level (the 95/95 departure from nucleate boiling (DNB) criterion) that the hot fuel rod in the core does not experience a DNB condition;

c. During an ejected rod accident, the fission energy input to the fuel must not exceed 280 cal/gm (per Regulatory Guide 1.77); and

d. The control rods must be capable of shutting down the reactor with a minimum required shutdown margin with the highest worth control rod stuck fully withdrawn (as required by 10 CFR Part 50, Appendix A, GDC 26).

The QPTR limits ensure that $F^N_{\Delta H}$ and $F_Q(Z)$ remain below their limiting values by preventing an undetected change in the gross radial power distribution. In MODE 1, the $F^N_{\Delta H}$ and $F_Q(Z)$ limits must be maintained to preclude core power distributions from exceeding design limits assumed in the safety analyses.

The staff has reviewed the licensee's amendment request. Considering that the proposed amendment will establish completion times where none currently exist, for required actions that already exist, the result is more conservatism. The time provided to reach hot shutdown (2 hours to 50% power + 4 hours to hot shutdown) is comparable to the time provided by the shutdown LCO (LCO 3.0.1) of the existing Ginna TS (1 hour to initiate action + 6 hours to hot shutdown). It should be noted that the defined hot shutdown MODE for Ginna, a two loop Westinghouse pressurized water reactor (PWR), corresponds to the hot standby MODE for the standard four loop Westinghouse PWR (for which the Standard Technical Specification shutdown LCO (LCO 3.0.3) allows 7 hours to reach).

The TS changes proposed by the licensee will provide a reasonably short period of time to correct the core power distribution to within the QPTR limits or reduce total core power. These actions will ensure that the fuel design limits criteria will be satisfied or the plant will be shutdown. The period of vulnerability while the gross power distribution may be outside the limits is comparable to the time required for a controlled plant shutdown. Therefore, the proposed a change is acceptable.

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (55 FR 40474). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: T. R. Tjader

Date: October 20, 1993