



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 16 TO FACILITY OPERATING LICENSE NO. NPF-69

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

DOCKET NO. 50-410

INTRODUCTION

By letter dated December 8, 1989, Niagara Mohawk Power Corporation (the licensee) submitted a request for amendment to the Technical Specifications for Nine Mile Point, Unit 2, for cycle 2 operation. The cycle 2 reload core will consist of GE fuel type GE8X8NB. The GE8X8NB fuel was approved for reload in Amendment No. 18 to GESTAR II (NEDE-24011-P-A). Due to the use of GE8X8NB fuel, the licensee recalculated the Minimum Critical Power Ratio (MCPR) Safety Limit and proposes changes in the Technical Specifications accordingly.

EVALUATION

Section 2.1.2 Thermal Power

The MCPR Safety Limit for cycle 2 with the GE8X8NB fuel type is proposed to change from 1.06 to 1.07. The proposed MCPR limit is based on an approved methodology described in the approved Amendment No. 18 to NEDE-24011-P-A. The degree of conservatism associated with the proposed new limit is the same as that of the existing MCPR limit in that there is an adequate margin to assure that more than 99.9 percent of the fuel rods in the core will not be expected to experience transition boiling during transient events.

Based on the approved methodology and adequate conservatism, we conclude that the new MCPR limit of 1.07 is acceptable for use in cycle 2.

Section 3.4.1.1 Recirculation Loops

The MCPR Safety Limit for cycle 2 with the GE8X8NB fuel type for operation with one recirculation loop is increased by 0.01. This increase changes the Safety Limit from 1.07 to 1.08. The proposed MCPR limit for operation with one recirculation loop is based on the approved Amendment No. 18 to NEDE-24011-P-A. The degree of conservatism associated with the proposed new limit is the same as the existing limit in that it is representative of a margin relative to the conditions required to maintain fuel cladding integrity for single loop operation.

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Based on the approved methodology and adequate conservatism, we conclude that the new MCPR Safety Limit of 1.08 for single loop operation is acceptable for use in cycle 2.

#### SUMMARY

The staff has evaluated the licensee's request to increase the MCPR Safety Limit associated with cycle 2 operation. Based on the approved methodology and adequate conservatism associated with the use of the approved GE type fuel GE8X8NB, we conclude that the proposed MCPR limit is acceptable for use in cycle 2 operation and poses no undue risk to the public health and safety.

#### ENVIRONMENTAL CONSIDERATION

This amendment involves a change in a requirement with respect to the installation or use of the facility components located within the restricted areas as defined in 10 CFR 20. The staff has determined that this 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 this amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Sec 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 this amendment.

#### CONCLUSION

We have 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, and (2) such activities will be conducted in compliance with the Commission's regulations and the issuance of these amendments will not be inimical to the common defense and security or to the health and safety of the public.

Dated: June 19, 1990

#### PRINCIPAL CONTRIBUTOR:

A. Massey



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