



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

December 17, 1991

Docket No. 50-410

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

Dear Mr. Sylvia:

SUBJECT: ISSUANCE OF AMENDMENT FOR NINE MILE POINT NUCLEAR STATION,
UNIT 2 (TAC NO. M81532)

The Commission has issued the enclosed Amendment No. 35 to Facility Operating License No. NPF-69 for the Nine Mile Point Nuclear Station Unit 2 (NMP-2). The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated August 21, 1991.

The amendment revises Technical Specification 4.9.6c. to allow raising the fuel assemblies up to 6 inches higher than currently allowed during refueling operations.

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

Sincerely,

John E. Menning, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 35 to NPF-69
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. B. Ralph Sylvia
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station
Unit 2

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DATED: December 17, 1991

AMENDMENT NO. 35 TO FACILITY OPERATING LICENSE NO. NPF-69-NINE MILE POINT UNIT 2

Docket File

NRC & Local PDRs

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cc: Plant Service list



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

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 35
License No. NPF-69

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by Niagara Mohawk Power Corporation (the licensee) dated August 21, 1991, 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 1;
 - 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. NPF-69 is hereby amended to read as follows:

(2) Technical Specifications and Environmental Protection Plan

The Technical Specifications contained in Appendix A and the Environmental Protection Plan contained in Appendix B, both of which are attached hereto, as revised through Amendment No. 35 are hereby incorporated into this license. Niagara Mohawk Power Corporation shall operate the facility in accordance with the Technical Specifications and the Environmental Protection Plan.

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

FOR THE NUCLEAR REGULATORY COMMISSION

Robert A. Capra

Robert A. Capra, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: December 17, 1991

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 35 TO FACILITY OPERATING LICENSE NO. NPF-69

DOCKET NO. 50-410

Revise Appendix A as follows:

Remove Page

3/4 9-8

Insert Page

3/4 9-8

REFUELING OPERATIONS

3/4.9.6 REFUELING PLATFORM

LIMITING CONDITIONS FOR OPERATION

3.9.6 The refueling platform shall be OPERABLE and used for handling fuel assemblies or control rods within the reactor pressure vessel.

APPLICABILITY: During handling of fuel assemblies or control rods within the reactor pressure vessel.

ACTION:

With the requirements for refueling platform OPERABILITY not satisfied, suspend use of any inoperable refueling platform equipment from operations involving the handling of control rods and fuel assemblies within the reactor pressure vessel after placing the load in a safe condition.

SURVEILLANCE REQUIREMENTS

4.9.6 Each refueling platform crane or hoist used for handling of control rods or fuel assemblies within the reactor pressure vessel shall be demonstrated OPERABLE within 7 days before the start of such operations with that crane or hoist by:

- a. Demonstrating operation of the overload cutoff on the main hoist when the load exceeds 1200 ± 50 pounds.
- b. Demonstrating operation of the overload cutoff on the frame mounted and monorail mounted auxiliary hoists when the load exceeds 1000 ± 50 pounds.
- c. Demonstrating operation of the main and auxiliary hoist uptravel stops when the grapple is lower than or equal to 7 feet $3 \frac{3}{4}$ inches below the platform tracks.
- d. Demonstrating operation of the downtravel mechanical cutoff on the main hoist when grapple hook down travel reaches 4 inches below fuel assembly handle.
- e. Demonstrating operation of the slack cable cutoff on the main hoist when the load is less than 50 ± 10 pounds.
- f. Demonstrating operation of the loaded interlock on the main hoist when the load exceeds 485 ± 50 pounds.
- g. Demonstrating operation of the redundant loaded interlock on the main hoist when the load exceeds 550 ± 50 pounds.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 35 TO FACILITY OPERATING LICENSE NO. NPF-69

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT 2

DOCKET NO. 50-410

1.0 INTRODUCTION

By letter dated August 21, 1991, Niagara Mohawk Power Corporation (the licensee) submitted a request for a change to the Nine Mile Point Nuclear Station, Unit 2, Technical Specifications (TS). The requested change would revise TS 4.9.6c. to allow a 6 inch increase to the normal uptravel limit for the refueling platform main and auxiliary hoists.

2.0 EVALUATION

Current TS 4.9.6c. provides surveillance requirements for the main and auxiliary hoists uptravel stops. The uptravel limit is defined by the position of the fuel grapple when it is 7 feet 9-3/4 inches below the platform tracks. The licensee has assessed that during fuel transfer the fuel assembly clears the fuel transfer shield bridge floor by approximately one inch. It creates the potential for the fuel assembly to bump against the shield bridge which could result in fuel damage. The licensee is proposing to increase the normal uptravel limits for the refueling platform main and auxiliary hoists by 6 inches.

The distance between the fuel grapple and the platform tracks would be changed from the current 7 feet 9-3/4 inches as stated in TS 4.9.6c. to 7 feet 3-3/4 inches. It would provide increased clearance margin between the fuel bundles and the transfer shield bridge, and reduce the potential for fuel damage during fuel transfer operations.

The staff has evaluated the impact of the proposed change as it relates to exposure of personnel on the refueling bridge, and to the analysis of a fuel handling accident. With regard to exposure of personnel on the refueling bridge, the licensee has calculated that a 6-inch reduction in water shielding over fuel during transfer with the spent fuel pool at the minimum level would change the individual whole body dose rate from 5 mrem/hr to approximately 9 mrem/hr and the accumulated dose per outage per person would remain well below the 10 CFR Part 20 limits.

During a conference call between the licensee and NRC on October 30, 1991, the licensee stated that during the 1990/1991 refueling outage, the total collective radiation exposure to personnel on the refueling bridge was 629 mrem. The licensee also estimated that the proposed increase of 6 inches in the uptravel limit for the refueling hoists would, at the most, double the collective radiation exposure to personnel on the refueling bridge.

The NRC staff has reviewed the licensee's estimates and finds that, as a result of the proposed change, the accumulated dose exposure to personnel on the refueling bridge during a refueling outage would remain very small and would not have any significant impact on the projected dose per outage per person.

The staff has reviewed the impact of the proposed TS change on the fuel accident analysis in Updated Safety Analysis Report Chapter 15. The fuel handling accident is assumed to occur as a consequence of the failure of the fuel assembly lifting mechanism. The most severe fuel handling accident from a radiological viewpoint is the drop of a fuel assembly from the maximum height allowed for the fuel handling equipment (30 feet) onto the top of the core when the reactor vessel head is off. This accident would produce the largest number of failed fuel rods. The total number of failed rods resulting from the accident was found by analysis to be 124. A design basis analysis based on Standard Review Plan 15.7.4, Revision 1, and Regulatory Guide 1.25 shows that the radiological consequences of such an accident are well below the 10 CFR Part 100 guidelines. The licensee has evaluated the radiological consequences of increasing the fuel assembly drop height to a maximum of 30 feet 6 inches. The licensee's evaluation concluded that the proposed TS change would increase to 125 the total number of failed rods resulting from the accident, and that it would have no significant effect on the radiological consequences, which would remain well below the 10 CFR Part 100 guidelines. The staff agrees with the licensee's conclusions that the small increase in radiological inventory potentially released as a consequence of the most severe fuel handling accident would be insignificant and that the overall radiological consequences would remain well within Part 100 exposure guideline values.

3.0 SUMMARY

The NRC staff concludes that the proposed change to TS 4.9.6c. is acceptable. The staff's conclusion is based on the review of previous exposure and current estimated exposure to personnel on the refueling bridge. The staff's conclusion is also based on the review of the licensee's assumptions and analyses of the radiological consequences from the most severe fuel handling accident.

4.0 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.

5.0 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 (56 FR 49924). 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.

6.0 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:
D. Oudinot

Date: December 17, 1991

December 17, 1991

DISTRIBUTION:
See attached sheet

Mr. B. Ralph Sylvia
Executive Vice President, Nuclear
Niagara Mohawk Power Corporation
301 Plainfield Road
Syracuse, New York 13212

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Sincerely,
Original signed by
John E. Menning, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Enclosures:

1. Amendment No. 35 to NPF-69
2. Safety Evaluation

cc w/enclosures:
See next page

*See previous concurrence

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