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

Posted
Amdt. 83
to DPR-63

May 22, 1986

Docket No. 50-220

Niagara Mohawk Power Corporation
Attn: Mr. C. V. Mangan
Senior Vice President
c/o Miss Catherine R. Seibert
300 Erie Boulevard West
Syracuse, New York 13202

Dear Mr. Mangan:

SUBJECT: CLARIFICATION OF CONDITIONS NECESSARY FOR INSTRUMENT PENETRATION MAINTENANCE WORK (TAC 60503)

Re: Nine Mile Point Nuclear Station, Unit No. 1

The Commission has issued the enclosed Amendment No. 83 to Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station, Unit No. 1. This amendment is in response to your application dated January 3, 1986. The Technical Specification (TS) changes restrict the replacement of dry tubes associated with the intermediate range monitor and source range monitor instrumentation. Specifically, the amendment replaces the term "LPRM" (local power range monitor) with the word "instrument" in order to include the assorted monitoring devices.

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

Sincerely,

John A. Zwolinski, Director
BWR Project Directorate #1
Division of BWR Licensing

Enclosures:
1. Amendment No. 83 to License No. DPR-63
2. Safety Evaluation

cc w/enclosures:
See next page

cc:

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

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION, UNIT NO. 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 83
License No. DPR-63

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

   A. The application for amendment by Niagara Mohawk Power Corporation (the licensee) dated January 3, 1986, 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-63 is hereby amended to read as follows:

(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 83 , 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 the date of its issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

John A. Zwolinski, Director
BWR Project Directorate #1
Division of BWR Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: May 22, 1986.

ATTACHMENT TO LICENSE AMENDMENT NO. 83

FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise the Appendix A Technical Specifications by removing the pages identified below and inserting the attached pages. The revised pages are identified by the captioned amendment number and contain marginal lines indicating the area of change.

REMOVE	INSERT
53	53
55	55
56	56
160	160
161	161
163	163
164	164

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
f. Work may be performed on control rod drives at times when water is not in the suppression chamber and the core spray system shall be considered operable provided the following are met: 1) No more than one control rod drive housing or instrument penetration will be opened at any time. 2) A blind flange will be installed on the control rod drive housing whenever a control rod drive has been removed for maintenance. 3) Work will not be performed in the reactor vessel while a control rod drive housing is open. 4) A control rod drive will not be removed if the backseat seal does not function.	
g. During reactor operation, except during core spray system surveillance testing, core spray isolation valves 40-02 and 40-12 shall be in the open position and the associated valve motor starter circuit breakers for these valves shall be locked in the off position. In addition, redundant valve position indication shall be available in the control room.	g. At least once per month verification that the piping system between valves 40-03, 13 and 40-01, 09, 10, 11 is filled with water.

3. Backup diesel-generator power shall be available to all motor-operated components.

Instrumentation has been installed to monitor the integrity of the core spray piping within the reactor pressure vessel. Following installation of this instrumentation, the requirements stated in Specification 4.1.4d shall be followed.

The testing specified for each major refueling outage will demonstrate component response upon automatic system initiation. For example, pump set starting (low-low level or high drywell pressure) and valve opening (low-low level or high drywell pressure and low reactor pressure) must function, under simulated conditions, in the same manner as the systems are required to operate under actual conditions. The only differences will be that demineralized water rather than suppression chamber water will be pumped to the reactor vessel and the reactor will be at atmospheric pressure. The core spray systems are designed such that demineralized water is available to the suction of one set of pumps in each system. (Section VII-Figure VII-1)*

The system test inverval between operating cycles results in a system failure probability of 1.1×10^{-6} (Fifth Supplement, page 115) and is consistent with practical considerations. The more frequent component testing results in a more reliable system.

At quarterly intervals, startup of core spray pumps will demonstrate pump starting and operability. No flow will take place to the reactor vessel due to the lack of a low-pressure permissive signal required for opening of the blocking valves. Flow, instead will be re-cycled to the suppression chamber via a test loop. A flow restricting device has been provided in the test loop which will create a pressure loss for testing of the system. In addition, the normally closed power operated blocking valves will be manually opened and re-closed to demonstrate operability.

The intent of Specification 3.1.4f is to allow control rod drive maintenance and instrument replacement at the time that the suppression chamber is unwatered and to perform normal fuel movement activities in the refuel mode with an unwatered suppression chamber.

*FSAR

Based on the limited time involved in performance of the concurrent maintenance tasks, procedural controls to minimize the potential and duration of leakage from the control rod drive housing or instrument penetration and available coolant makeup provides adequate protection against drainage of the vessel while the suppression chamber is drained.

Specification 3.1.4g establishes provisions to eliminate a potential single failure mode of core spray isolation valves 40-02 and 40-12. These provisions are necessary to ensure that the core spray system safety function is single failure proof. During system testing, when the isolation valve(s) are required to be in the closed condition, automatic opening signals to the valve(s) are operable if the core spray system safety function is required.

The intent of Specification 3.1.4h is to allow maintenance of reactor vessel structures while in the cold shutdown condition as specified in Specification 2.1.1e. This will require bypassing the core spray automatic initiation at the low-low water level signal.

f. Work may be performed on control rod drives at times when water is not in the suppression chamber and the containment spray system shall be considered operable provided the following are met:

1) No more than one control rod drive housing or instrument penetration will be opened at any time.

2) A blind flange will be installed on the control rod drive housing whenever a control rod drive has been removed for maintenance.

3) Work will not be performed in the reactor vessel while a control rod drive housing is open.

4) A control rod drive will not be removed if the backseat seal does not function.

5) A minimum condensate storage volume of 300,000 gallons and a minimum hot well storage volume of 40,000 gallons will be maintained during the period that the torus water level is below that corresponding to minimum NPSH requirement.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
6) The control rod drive removal and instrument replacement shall not be concurrent items.	

suppression chamber pool. Taking into account the reduced steam condensation capability and increased suppression chamber vapor pressure, the raw water cooling would not be required for more than 20 minutes for initial suppression chamber temperatures up to 110F. This assumes that all core spray systems fail. Therefore, manual initiation of the raw water system is acceptable.

Nearly all maintenance can be completed within a few days. Infrequently, however, major maintenance might be required. Replacement of principal system components could necessitate outages of more than 15 days. In spite of the best efforts of the operator to return equipment to service, some maintenance could require up to 6 months.

In conjunction with containment spray pump operation during each operating cycle, the raw water pumps and associated cooling system performance will be observed. The containment spray system shall be capable of automatic initiation from simultaneous low-low reactor water level and high containment pressure. The associated raw water cooling system shall be capable of manual actuation. Operation of the containment spray system involves spraying water into the atmosphere of the containment. Therefore, periodic system tests are not practical. Instead separate testing of automatic containment spray pump startup will be performed during each operating cycle. During pump operation, water will be recycled to the suppression chamber. Air tests to determine flows to spray headers will also be performed at this time and compared to initial pre-operational air testing, verifying that piping and/or nozzle conditions have not changed significantly. Design features are discussed in Volume I, Section VII-B.2.0 (page VII-19*). The valves in the containment spray system are normally open and are not required to operate when the system is called upon to operate.

The test interval between operating cycle results in a system failure probability of 1.1×10^{-6} (Fifth Supplement, page 115*) and is consistent with practical considerations. Pump operability will be demonstrated on a more frequent basis and will provide a more reliable system.

The intent of Specification 3.3.7f is to allow control rod drive maintenance and instrument replacement at the time that the suppression chamber is unwatered and to perform normal fuel movement activities in the refuel mode with an unwatered suppression chamber.

*FSAR

Based on the limited time involved in performance of the concurrent maintenance tasks, procedural controls to minimize the potential and duration of leakage from the control rod drive housing or instrument penetration and available coolant makeup provides adequate protection against drainage of the vessel while the suppression chamber is drained.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 83 TO FACILITY OPERATING LICENSE NO. DPR-63

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT NO. 1

DOCKET NO. 50-220

1.0 INTRODUCTION

By application dated January 3, 1986, Niagara Mohawk Power Corporation (the licensee) requested an amendment to Appendix A of Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station, Unit No. 1. The proposed Technical Specification (TS) changes would restrict the replacement of dry tubes associated with the intermediate range monitor (IRM) and source range monitor (SRM) instrumentation. The same basis specified for local power range monitor (LPRM) associated dry tubes now in the TS would be applicable. Specifically, the term "LPRM" would be replaced with the word "instrument" in order to include the assorted monitoring devices.

2.0 EVALUATION

The proposed amendment would replace the term "LPRM" with the word "instrument" in order to include the assorted monitoring devices. The proposed change is intended to clarify the existing TS.

The current TS do not directly consider instrument penetrations other than the LPRM's in determining the operability of the core spray or containment spray systems. This condition should also be met for other instrument penetrations. The proposed change will assure that both the core spray and containment spray systems are considered operable only when no more than one control rod drive housing or instrument penetration is opened at one time. Additionally, this change will assure that SRM and IRM associated dry tubes are replaced only when correct conditions exist. The current Bases for TS Sections 3.3.7 and 4.3.7 state that the intent of the TS is to allow for control rod drive maintenance and LPRM replacement when the suppression chamber is unwatered. In addition, procedural controls regarding available make-up water and limited time involved in the performance of the task exist, so that replacement of a dry tube can be performed with adequate protection against drainage of the vessel while the suppression chamber is drained. The proposed change will clarify the intent of the TS and is therefore acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves a change to a requirement with respect to the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The 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 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 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement nor environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff 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, and (2) 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 nor to the health and safety of the public.

Principal Contributor: J. L. Kelly.

Dated: May 22, 1986.