

April 1, 1985

Docket No. 50-220

Mr. B. G. Hooten
Executive Director, Nuclear Operations
Niagara Mohawk Power Corporation
300 Erie Boulevard West
Syracuse, New York 13202

Dear Mr. Hooten:

The Commission has issued the enclosed Amendment No. 72 to Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station, Unit No. 1. The amendment consists of changes to the Technical Specifications in response to your request dated June 29, 1984 as supplemented and clarified by letter dated December 3, 1984.

The revision to the Technical Specifications changes the limiting conditions for operation, surveillance requirements and supporting bases for the Emergency Cooling System and Accident Monitoring Instrumentation (TMI Items II.B.1, II.F.1.3, II.F.1.4, II.F.1.5 and II.F.1.6).

A copy of the Safety Evaluation is also enclosed.

Sincerely,

Original signed by/

Robert A. Hermann, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:

1. Amendment No. 72 to License No. DPR-63
2. Safety Evaluation

cc w/enclosures:
See next page

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Mr. B. G. Hooten
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station, Unit No. 1

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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. 72
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 June 29, 1984 as supplemented and clarified December 3, 1984, 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:

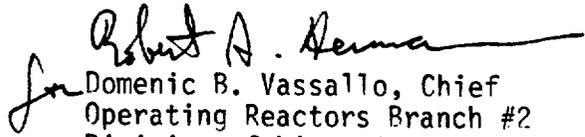
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(2) Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 72, 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


Domenic B. Vassallo, Chief
Operating Reactors Branch #2
Division of Licensing

Attachment:
Changes to the Technical
Specifications

Date of Issuance: April 1, 1985

ATTACHMENT TO LICENSE AMENDMENT NO. 72

FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Revise the Appendix A Technical Specifications by removing and inserting the following pages:

<u>Existing Page</u>	<u>Revised Page</u>
47	47
47a	-
48	48
50	50
241ee	241ee
241ff	241ff
241gg	241gg
--	241gg1
241hh	241hh
241ii	241ii

The revised areas are indicated by marginal lines.

LIMITING CONDITION FOR OPERATION

3.1.3 EMERGENCY COOLING SYSTEM

Applicability:

Applies to the operating status of the emergency cooling system.

Objective:

To assure the capability of the emergency cooling system to cool the reactor coolant in the event the normal reactor heat sink is not available.

Specification:

- a. During power operating conditions and whenever the reactor coolant temperature is greater than 212F, both emergency cooling systems shall be operable except as specified in 3.1.3.b and c.
- b. If one emergency cooling system becomes inoperable, Specification 3.1.3.a shall be considered fulfilled, provided that the inoperable system is returned to an operable condition within 7 days and the additional surveillance required is performed.

SURVEILLANCE REQUIREMENT

4.1.3 EMERGENCY COOLING SYSTEM

Applicability:

Applies to periodic testing requirements for the emergency cooling system.

Objective:

To assure the capability of the emergency cooling system for cooling of the reactor coolant.

Specification:

The emergency cooling system surveillance shall be performed as indicated below:

- a. At least once every five years -

The system heat removal capability shall be determined.

- b. At least once daily -

The shell side water level and makeup tank water level shall be checked.

- c. At least once per month -

The makeup tank level control valve shall be manually opened and closed.

LIMITING CONDITION FOR OPERATION

- c. Make up water shall be available from the two gravity feed makeup water tanks.
- d. During Power Operating Conditions, each emergency cooling system high point vent to torus shall be operable.
 - 1. With a vent path for one emergency cooling system inoperable, restore the vent path to an operable condition within 30 days.
 - 2. With vent paths for both emergency cooling systems inoperable, restore one vent path to an operable condition within 14 days and both vent paths within 30 days.
- e. If Specification 3.1.3.a, b, c or d are not met, a normal orderly shutdown shall be initiated within one hour and the reactor shall be in the cold shutdown condition within ten hours.

SURVEILLANCE REQUIREMENT

- d. At least once each shift -
The area temperature shall be checked.
- e. During each major refueling outage -
Automatic actuation and functional system testing shall be performed during each major refueling outage and whenever major repairs are completed on the system.

Each emergency cooling vent path shall be demonstrated operable by cycling each power-operated valve (05-01R, 05-11, 05-12, 05-04R, 05-05 and 05-07) in the vent path through one complete cycle of full travel and verifying that all manual valves are in the open position.
- f. Surveillance with an Inoperable System
When one of the emergency cooling systems is inoperable, the level control valve and the motor-operated isolation valve in the operable system shall be demonstrated to be operable immediately and daily thereafter.

BASES FOR 3.1.3 AND 4.1.3 EMERGENCY COOLING SYSTEM

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 7 days. In spite of the best efforts of the operator to return equipment to service, some maintenance could require up to 6 months.

The system heat removal capability shall be determined at five-year intervals. This is based primarily on the low corrosion characteristics of the stainless steel tubing. During normal plant operation the water level will be observed at least once daily on emergency condensers and makeup water tanks. High and low water level alarms are also provided on the above pieces of equipment. The test frequency selected for level checks and valve operation is to assure the reliability of the system to operate when required.

The emergency cooling system is provided with high point vents to exhaust noncondensable gases that could inhibit natural circulation cooling. Valve redundancy in the vent path serves to minimize the probability of inadvertent or irreversible actuation while ensuring that a single failure of a vent valve, power supply or control system does not prevent isolation of the vent path. The function, capabilities and testing requirements of the emergency cooling vent paths are consistent with the requirements of item II.B.1 of NUREG 0737, "Clarification of TMI Action Plan Requirement," November 1980.

LIMITING CONDITION FOR OPERATION

3.6.11 ACCIDENT MONITORING INSTRUMENTATION

Applicability:

Applies to the operability of the plant instrumentation that performs an accident monitoring function.

Objective:

To assure high reliability of the accident monitoring instrumentation.

Specification:

- a. During the power operating condition, the accident monitoring instrumentation channels shown in Table 3.6.11-1 shall be operable except as specified in Table 3.6.11-2.

SURVEILLANCE REQUIRMENT

4.6.11 ACCIDENT MONITORING INSTRUMENTATION

Applicability:

Applies to the surveillance of the instrumentation that performs an accident monitoring function.

Objective:

To verify the operability of accident monitoring instrumentation.

Specification:

Instrument channels shall be tested and calibrated at least as frequently as listed in Table 4.6.11.

TABLE 3.6.11-1

ACCIDENT MONITORING INSTRUMENTATION

<u>Parameters</u>	<u>Total Number of Channels</u>	<u>Minimum Number of Operable Channels</u>	<u>Action (See Table 3.6.11-2)</u>
1) Relief Valve Position Indication	2/Valve	1/Valve	1
2) Safety Valve Position Indication	2/Valve	1/Valve	1
3) Reactor Vessel Water Level	2	1	2
4) Drywell Pressure Monitor	2	1	4
5) Suppression Chamber Water Level	2	1	4
6) Containment Hydrogen Monitor	2	1	4
7) Containment High Range Radiation Monitor	2	1	3

TABLE 3.6.11-2

ACCIDENT MONITORING INSTRUMENTATION
ACTION STATEMENTS

ACTION - 1

- a. With the number of OPERABLE accident monitoring instrumentation channels less than the total number shown in Table 3.6.11-1, restore to an OPERABLE status during the next cold shutdown when there is access to the drywell.
- b. With the number of OPERABLE accident monitoring instrumentation channels less than the minimum number shown in Table 3.6.11-1, restore the inoperable channel to an OPERABLE status within 30 days or be in at least a HOT SHUTDOWN within the next 12 hours.
- c. The total number of channels shown in Table 3.6.11-1 will be OPERABLE prior to the beginning of each cycle.

ACTION -2

- a. With the number of OPERABLE accident monitoring instrumentation channels less than the total Number of Channels shown in Table 3.6.11-1, restore the inoperable channel(s) to OPERABLE status within seven days or be in at least HOT SHUTDOWN within the next 12 hours.
- b. With the number of OPERABLE accident monitoring instrumentation channels less than the minimum Channels OPERABLE requirements of Table 3.6.11-1, restore the inoperable channel(s) to OPERABLE status within 48 hours or be in at least HOT SHUTDOWN within the next 12 hours.

ACTION - 3

- a. With the number of OPERABLE channels less than the total Number of Channels shown in Table 3-6.11-1, prepare and submit a Special Report to the Commission within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
- b. With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, initiate the pre-planned alternate method of monitoring the appropriate parameter(s) within 72 hours, and :
 - 1) either restore the inoperable channel(s) to OPERABLE status within seven days of the event, or
 - 2) prepare and submit a Special Report to the Commission within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.

ACTION - 4

- a. With the number of OPERABLE channels less than the total Number of Channels shown in Table 3-6.11-1, prepare and submit a Special Report to the Commission within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE status.
- b. With the number of OPERABLE channels less than required by the minimum channels OPERABLE requirements, initiate the pre-planned alternate method of monitoring the appropriate parameter(s) within 72 hours, and:
 - 1) either restore the inoperable channel(s) to OPERABLE status within seven days of the event, or
 - 2) prepare and submit a Special Report to the Commission within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to OPERABLE system.
- c. If the pre-planned alternate method of monitoring the appropriate parameter(s) is not available, either restore the inoperable channel(s) to OPERABLE status within seven days or be in at least HOT SHUTDOWN within the next 12 hours.

Table 4.6.11

Accident Monitoring InstrumentationSurveillance Requirement

<u>Parameter</u>	<u>Instrument Channel Test</u>	<u>Instrument Channel Calibration</u>
(1) Relief valve position indicator (Primary - Acoustic)	Once per month	Once during each major refueling outage
Relief valve position indicator (Backup - Thermocouple)	Once per month	Once during each major refueling outage
(2) Safety valve position indicator (Primary - Acoustic)	Once per month	Once during each major refueling outage
Safety valve position indicator (Backup - Thermocouple)	Once per month	Once during each major refueling outage
(3) Reactor vessel water level	Once per month	Once during each major refueling outage
(4) Drywell Pressure Monitor	Once per month	Once during each major refueling outage
(5) Suppression Chamber Water Level Monitor	Once per month	Once during each major refueling outage
(6) Containment Hydrogen Monitor	Once per month	Once per quarter
(7) Containment High Range Radiation Monitor	Once per month	Once during each major refueling outage

BASES 3.6.11 AND 4.6.11 ACCIDENT MONITORING INSTRUMENTATION

Accident monitoring instrumentation ensures that sufficient information is available on selected plant parameters to monitor and assess these variables during and following an accident. This capability is consistent with the recommendations of NUREG-0578, "TMI-2 Lessons Learned Task Force Status Report and Short-Term Recommendations" and/or NUREG-0737, "Clarification of TMI Action Plan Requirements," November 1980.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
SUPPORTING AMENDMENT NO. 72 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

In November 1980, the staff issued NUREG-0737, "Clarification of TMI Action Plan Requirements," which included all TMI Action Plan items approved by the Commission for implementation at nuclear power reactors. NUREG-0737 identifies those items for which Technical Specifications are required. A number of items which require Technical Specifications (TSs) were scheduled for implementation after December 31, 1981. The staff provided guidance on the scope of Technical Specifications for all of these items in Generic Letter 83-36. Generic Letter 83-36 was issued to all Boiling Water Reactor (BWR) licensees on November 1, 1983. In this Generic Letter, the staff requested licensees to:

1. review their facility's Technical Specifications to determine if they were consistent with the guidance provided in the Generic Letter, and
2. submit an application for a license amendment where deviations or absence of Technical Specifications were found.

By application dated June 29, 1984 and supplemented and clarified December 3, 1984, Niagara Mohawk Power Corporation (the licensee) requested an amendment to Appendix A of Operating License No. DPR-63 for Nine Mile Point Nuclear Station, Unit No. 1. The amendment request is in response to Generic Letter 83-36 and covers the following TMI items:

1. Reactor Coolant System Vents (II.B.1)
2. Containment High-Range Radiation Monitor (II.F.1.3)
3. Containment Pressure Monitors (II.F.1.4)
4. Containment Water Level (II.F.1.5)
5. Containment Hydrogen Monitor (II.F.1.6)

2.0 Evaluation

2.1 Reactor Coolant System Vents (II.B.1)

Our guidance for Reactor Coolant System (RCS) vents identified the need for at least one operable vent path at the high points of the isolation condenser in BWRs with isolation condenser and no high

pressure injection other than normal feedwater or the control rod drive system. Generic Letter 83-36 also provided limiting conditions for operation and the surveillance requirements for the RCS vents. The licensee has proposed TSs for emergency cooling system high point vents that are consistent with our guidance. Therefore, we find the proposed TSs to be acceptable.

2.2 Containment High-Range Radiation Monitor (II.F.1.3)

The licensee has installed two drywell radiation monitors in Nine Mile Point Unit 1 that is consistent with the guidance of TMI Action Plan Item II.F.1.3. Generic Letter 83-36 provided guidance for limiting conditions for operation and surveillance requirements for these monitors. The licensee proposed TSs that are consistent with the guidance provided in our Generic Letter 83-36. Therefore, we conclude that the proposed TSs for Item II.F.1.3 are acceptable.

2.3 Containment Pressure Monitor (II.F.1.3), Containment Water Level (II.F.1.5), and Containment Hydrogen Monitor (II.F.1.6)

On December 17, 1982, all licensees of operating reactors, applicants for operating licenses and holders of construction permits were sent a copy of Generic Letter No. 82-33 (Supplement 1 to NUREG-0737). This letter included guidance on post-accident monitoring instrumentation through an endorsement of Regulatory Guide 1.97, Revision 2. Regulatory Guide 1.97, Revision 2 divides the post-accident monitoring instruments into three categories providing a graded approach to requirements depending on the importance to safety of the measurement of a specific variable. Category 1 includes the most stringent requirements and is intended for key variables. Category 2 includes less stringent requirements and generally applies to instrumentation provided to furnish information regarding the release of radioactive materials. Category 3 is intended to provide requirements that will ensure high-quality, off-the-shelf instrumentation is used for backup and diagnostic instrumentation. Although the Regulatory Guide does not include explicit guidance on technical specifications, it does state that the Category 1 instrumentation "should be available prior to an accident except as provided in paragraph 4.11, 'Exception,' as defined in IEEE Standard 279 or as specified in the Technical Specifications" (C.1.3.1). For Category 2 instrumentation, the Regulatory Guide states: "the out-of-service interval should be based on normal technical specification requirements on out-of-service for the system it serves where applicable or where specified by other requirements" (C.1.3.2).

Generic Letter 83-36, "NUREG-0737 Technical Specifications," dated November 1, 1983 requested that the licensee provide information regarding the implementation of Technical Specifications for certain NUREG-0737 items. In a letter dated June 29, 1984, the licensee

responded to the request for information provided in the above Generic Letter. In their original submittal, the licensee proposed, as the action statement for channel inoperability for Items II.F.1.4, II.F.1.5 and II.F.1.6, to initiate a preplanned alternate method of monitoring the appropriate parameter(s) within 72 hours only if the number of operable channels was less than the minimum number of channels (1). The inoperable channel(s) would then have to be restored to operable status within 7 days of the event or a Special Report would have to be submitted to the Commission within 14 days following the event.

The staff was concerned regarding (1) the lack of action to be taken if the number of operable channels were less than the total shown in Table 3.6.11-1, "Accident Monitoring Instrumentation" and (2) the absence of any justification(s) for not placing the plant in a hot shutdown condition if the minimum number of operable channels cannot be maintained for a certain time. The licensee responded to these staff concerns by providing a second submittal (letter dated December 3, 1984 from C. V. Mangan to Domenic B Vassallo). This submittal provided a revised action statement such that, if the total number of operable channels were less than the total shown in Table 3.6.11-1, the licensee would be required to submit a Special Report to the Commission within 14 days following the event outlining the action taken, the cause of the inoperability and the plans and schedule for restoring the system to operable status. In addition, the licensee provided acceptable justification for not placing the plant in a hot shutdown condition if the minimum number of channels cannot be maintained. Due to the BWR 2 design with the Mark I type containment, the instrumentation associated with TMI items II.F.1.4, 5 and 6 is inaccessible during operation and, therefore, cannot be maintained or repaired. In lieu of placing the plant in a hot shutdown condition, the licensee has provided back-up instrumentation to be used in the event of the inoperability of the instrumentation associated with these TMI items.

Based on the above, the staff has concluded that the licensee's planned operating procedures that address back-up instruments to be used in the event a channel(s) fails and the implementation of the revised action statements will be programmatic requirements that will provide incentive for the licensee to restore an instrument's operability as soon as practical and restrict plant operation to a minimum.

The staff finds the proposed changes to the Nine Mile Point, Unit 1 Technical Specifications pertaining to accident monitoring instrumentation permit the operation of the facility in a manner that is consistent with the licensing basis and the accident analysis and the guidance of NRC Generic Letter No. 83-36, "NUREG-0737 Technical Specifications."

Based on the above, the staff concludes that the proposed Technical Specification modifications concerning implementation of TMI Action Plan items II.F.1.4, II.F.1.5 and II.F.1.6 are acceptable.

3.0 Environmental Considerations

This amendment involves a change in the installation or use of a facility component located within the restricted area and a change in a surveillance requirement. The staff has determined that the amendment involves no significant increase in the amounts 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 or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 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 this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributors: C. Patel and J. Mauck

Dated: April 1, 1985