Mr. John H. Mueller
Chief Nuclear Officer
Niagara Mohawk Power Corporation
Nine Mile Point Nuclear Station
Operations Building, Second Floor
P. O. Box 63
Lycoming, NY 13093

March 16, 1999

SUBJECT: ISSUANCE OF AMENDMENT FOR NINE MILE POINT NUCLEAR STATION, UNIT NO. 1 (TAC NO. MA4492)

Dear Mr. Mueller:

The Commission has issued the enclosed Amendment No. 165 to Facility Operating License No. DPR-63 for the Nine Mile Point Nuclear Station, Unit No. 1 (NMP1). The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated December 30, 1998.

This amendment changes TS 3.6.14 and 4.6.14 regarding the noble gas activity monitor channel operability requirement and the daily sensor check surveillance requirement to be consistent with the conditions specified in limiting condition for operation 3.1.3.a for operability of the emergency cooling system. Also, this amendment corrects a clerical error in TS 4.6.15.d.

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

Sincerely,

ORIGINAL SIGNED BY:

Darl S. Hood, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-220

Enclosures: 1. Amendment No. 165 to DRP-63
2. Safety Evaluation

cc w/encls: See next page

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DATED: March 16, 1999

AMENDMENT NO. 165 TO FACILITY OPERATING LICENSE NO. DPR-63-NINE MILE POINT UNIT NO. 1

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

March 16, 1999

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Darl S. Hood

Darl S. Hood, Senior Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-220

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cc w/encls: See next page

cc:

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

NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-220

NINE MILE POINT NUCLEAR STATION, UNIT 1

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 165
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 December 30, 1998, 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. DPR-63 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. 165 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

S. Singh Bajwa, 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: March 16, 1999

ATTACHMENT TO LICENSE AMENDMENT NO. 165

TO FACILITY OPERATING LICENSE NO. DPR-63

DOCKET NO. 50-220

Replace the following pages of the Appendix A Technical Specifications with the attached pages.

Remove	Insert
290	290
293	293
305	305

TABLE 3.6.14-2 (cont'd)
RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

	Instrument	Minimum Channels Operable	Applicability	Action
3.	Condenser Air Ejector Radioactivity Monitor (Recombiner discharge or air ejector discharge)			
	a. Noble Gas Activity	1	***	(g)
	b. Offgas System Flow Rate Measuring Devices	1	***	(c)
	c. Sampler Flow Rate Measuring Devices	1	***	(c)
4.	Emergency Condenser System			
	a. Noble Gas Activity Monitor	1 per vent	****	(h)

*** During operation of the main condenser air ejector

**** During power operating conditions and whenever the reactor coolant temperature is greater than 212°F except for hydrostatic testing with the reactor not critical.

NOTES FOR TABLE 4.6.14-2

(a) At all times.

(b) The channel calibration shall be performed using one or more of the reference standards certified by the National Bureau of Standards, standards that are traceable to the National Bureau of Standards or using actual samples of gaseous effluent that have been analyzed on a system that has been calibrated with National Bureau of Standards traceable sources. These standards shall permit calibrating the system over its intended range of energy and measurement.

(c) The channel function test shall demonstrate that control room alarm annunciation occurs if either of the following conditions exist:

1) Instrument indicates measured levels above the Hi or Hi Hi alarm setpoint.

2) Instrument indicates a downscale failure.

The channel function test shall also demonstrate that automatic isolation of this pathway occurs if either of the following conditions exist:

1) Instruments indicate two channels above Hi Hi alarm setpoint.

2) Instruments indicate one channel above Hi Hi alarm setpoint and one channel downscale.

(d) During main condenser offgas treatment system operation.

(e) The channel calibration shall include the use of standard gas samples containing a nominal:

1. One volume percent hydrogen, balance nitrogen.

2. Four volume percent hydrogen, balance nitrogen.

(f) During operation of the main condenser air ejector.

(g) The channel test shall produce upscale and downscale annunciation.

(h) During power operating conditions and whenever the reactor coolant temperature is greater than 212°F except for hydrostatic testing with the reactor not critical.

LIMITING CONDITION FOR OPERATION	SURVEILLANCE REQUIREMENT
c. Main Condenser The gross radioactivity (beta and/or gamma) rate of noble gases measured at the recombiner discharge shall be limited to less than or equal to 500,000 μCi/sec. This limit can be raised to 1 Ci/sec. for a period not to exceed 60 days provided the offgas treatment system is in operation. With the gross radioactivity (beta and/or gamma) rate of noble gases at the recombiner discharge exceeding the above limits, restore the gross radioactivity rate to within its limit within 72 hours or be in at least Hot Shutdown within the next 12 hours.	c. Main Condenser The radioactivity rate of noble gases at the recombiner discharge shall be continuously monitored in accordance with Table 3.6.14-2. The gross radioactivity (beta and/or gamma) rate of noble gases from the recombiner discharge shall be determined to be within the limits of Specification 3.6.15 at the following frequencies by performing an isotopic analysis of a representative sample of gases taken at the recombiner discharge: Monthly: Within 4 hours following an increase on the recombiner discharge monitor of greater than 50%, factoring out increases due to changes in thermal power level and dilution flow changes.
d. Uranium Fuel Cycle The annual (calendar year) dose or dose commitment to any member of the public due to releases of radioactivity and to radiation from uranium fuel cycle sources shall be limited to less than or equal to 25 mrems to the total body or any organ, except the thyroid, which shall be limited to less than or equal to 75 mrems.	d. Uranium Fuel Cycle Cumulative dose contributions from liquid and gaseous effluents shall be determined in accordance with Specifications 4.6.15.a.(2), 4.6.15.b.(2) and 4.6.15.b.(3) and in accordance with the methodology and parameters in the Offsite Dose Calculation Manual.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 165 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 letter dated December 30, 1998, Niagara Mohawk Power Corporation (NMPC or the licensee), proposed a license amendment to change the Technical Specifications (TSs) for Nine Mile Point Nuclear Station, Unit No. 1 (NMP1). The proposed amendment would change TS Tables 3.6.14-2 and 4.6.14-2 regarding the noble gas activity monitor channel operability requirement and the daily sensor check surveillance requirement to be consistent with the conditions specified in Limiting Condition for Operation 3.1.3.a for operability of the Emergency Cooling System (ECS). Also, this amendment corrects a clerical error in TS 4.6.15.d.

2.0 BACKGROUND

The licensee is proposing changes to TS Tables 3.6.14-2 and 4.6.14-2 to satisfy the requirement of 10 CFR Part 50 Appendix A, General Design Criterion (GDC) 64, to monitor effluent discharge paths and to assure that the radioactive effluents are maintained within the dose and dose rate limits of 10 CFR Part 50 Appendix I and 10 CFR Part 20 for the ECS noble gas activity monitor. GDC 64, requires monitoring of effluent discharge paths and plant environs for radioactivity that may be released from normal operations, including anticipated operational occurrences, and from postulated accidents. The ECS noble gas activity monitor, provides the monitoring of emergency cooling condenser atmospheric vent path. TS 3.13.a requires the emergency cooling system to be operable during power operating conditions and whenever the reactor coolant temperature is greater than 212 °F, except for hydrostatic testing with the reactor not critical. Currently, TS Table 3.6.14-2 requires the ECS noble gas activity monitor to be operable during reactor power operating condition. Currently, TS Table 4.6.14-2 requires that a daily sensor check surveillance be performed during the reactor power operating condition. The proposed amendment would extend the operability requirement and the daily sensor check surveillance requirement of the ECS noble gas activity monitor to be consistent with the requirements for operability of the ECS.

The ECS is a standby system that is designed to remove fission product decay heat following a reactor scram, if the main condenser is not available as a heat sink, or in the event of a loss of reactor feedwater. The ECS is described in Section V-E and the associated noble gas activity monitor is described in Section VIII-C.3.1.1 of the NMP1 Final Safety Analysis Report.

The ECS consists of two independent loops, each with two emergency condensers. Steam is supplied from the reactor to the tube side of the emergency condensers. Cooling water surrounds the tubes on the shell side of the condensers. When the system is in operation, the steam from the reactor causes the cooling water that surrounds the tubes to boil at approximately 5 psig, transferring the heat from the reactor to the cooling water. The steam from the reactor is condensed to water and is returned to the reactor vessel. The cooling water in the emergency condenser that absorbed the heat boils, and is vented to atmosphere. The vent line from each of the ECS loops is provided with two noble gas activity monitor channels. These monitors provide a high radiation alarm in the control room in the event of a tube leak in the emergency condenser. Isolation of a loop with indication of tube leakage is accomplished by manually closing the inlet and outlet valves.

3.0 EVALUATION

The proposed TS amendment consists of changes to TS Sections 3.6.14 and 4.6.14 regarding the operability requirement and daily sensor check surveillance requirement. This amendment also corrects a clerical error in TS 4.6.15.d. These proposed changes are summarized and discussed below.

(1) TS Table 3.6.14-2, Radioactive Effluent Monitoring Instrumentation: The proposed change is to modify the ECS noble gas activity monitor applicability from "During reactor power operating condition" to "During power operating conditions and whenever the reactor coolant temperature is greater than 212 °F, except for hydrostatic testing with the reactor not critical."

(2) TS Table 4.6.14-2, Radioactive Gaseous Process and Effluent Monitoring Instruments: The proposed change is to modify the ECS noble gas activity monitor requirement for the daily sensor check surveillance from "During reactor power operating condition" to "During power operating conditions and whenever the reactor coolant temperature is greater than 212 °F, except for hydrostatic testing with the reactor not critical."

(3) TS 4.6.15.d, Radioactive Effluents Uranium Fuel Cycle: The proposed change is to cite TS 4.6.15.b.(3) instead of TS 4.6.16.b.(3). The current TS 4.6.15.d requires the cumulative dose contributions from liquid and gaseous effluent for the uranium fuel cycle to be determined in accordance with TS 4.6.15.a.(2), 4.6.15.b.(2), and 4.6.16.b.(3); however there is no TS 4.6.16.b.(3). TS 4.6.15.b.3, which applies to the cumulative dose contributions of iodine-131, iodine-133, tritium, and radionuclides in particulate form with half-lives greater than 8 days, is the correct citation. The change is a proper editorial correction and is, therefore, acceptable.

10 CFR Part 50 Appendix A, GDC 64, "Monitoring Radioactivity Releases," requires monitoring of effluent discharge paths and plant environs for radioactivity that may be released from normal operations, including anticipated operational occurrences, and from postulated accidents.

Currently, at least one channel of the ECS noble gas activity monitor is required to be operable and a daily sensor check surveillance is required to be performed when the reactor is in the power operating condition. The ECS noble gas activity monitor provides the monitoring of emergency cooling condenser atmospheric vent path. Since the ECS is required to be operable during power operating conditions and whenever the reactor coolant temperature exceeds 212 °F except for hydrostatic testing with the reactor not critical, the ECS noble gas activity monitor should have the same operability and daily sensor check surveillance requirement to assure that the emergency cooling condenser vent path is being monitored as required by GDC 64 and the radioactive effluents are maintained within the dose and dose rate limits of 10 CFR Part 20 and 10 CFR Part 50 Appendix I. The NRC staff finds this more restrictive change acceptable.

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 and changes surveillance requirements. 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 (64 FR 6699). 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: Jack Cushing
Darl Hood

Date: March 16, 1999