



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555

May 9, 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. 79480)

The Commission has issued the enclosed Amendment No. 30 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 January 21, 1991.

The amendment revises Technical Specification Table 4.3.7.10-1 to require isolation of the offgas system as part of the 18-month channel calibration for the noble gas activity monitor in lieu of the requirement to demonstrate actual isolation during the monthly functional test. This amendment also revises Technical Specification Table 3.3.7.10-1 to reflect the as-built configuration of the noble gas activity monitor instrumentation and makes an editorial change.

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,

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

Enclosures:

1. Amendment No. 30 to NPF-69
2. Safety Evaluation

cc w/enclosures:
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Mr. B. Ralph Sylvia
Niagara Mohawk Power Corporation

Nine Mile Point Nuclear Station
Unit 2

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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. 30
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 January 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. 30 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: May 9, 1991

ATTACHMENT TO LICENSE AMENDMENT

AMENDMENT NO. 30 TO FACILITY OPERATING LICENSE NO. NPF-69

DOCKET NO. 50-410

Revise Appendix A as follows:

Remove Pages

3/4 3-98
3/4 3-99
3/4 3-100
3/4 3-101
3/4 3-102

Insert Pages

3/4 3-98
3/4 3-99
3/4 3-100
3/4 3-101
3/4 3-102

TABLE 3.3.7.10-1

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION

<u>INSTRUMENT</u>	<u>MINIMUM CHANNELS OPERABLE</u>	<u>APPLICABILITY</u>	<u>ACTION</u>
1. Offgas System			
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release	2	*	135
b. System Flow-Rate Measuring Device	1	*	136
c. Sample Flow-Rate Measuring Device	2	*	136
2. Offgas System Explosive Gas Monitoring System**			
a. Hydrogen Monitor Train A (Instrument 20FG-AT-16A or 20FG-AT-115)	1	*	137
b. Hydrogen Monitor Train B (Instrument 20FG-AT-16B or 20FG-AT-115)	1	*	137
3. Radwaste/Reactor Building Vent Effluent System			
a. Noble Gas Activity Monitor†	1	††	139
b. Iodine Sampler	1	††	138
c. Particulate Sampler	1	††	138
d. Flow-Rate Monitor	1	††	136
e. Sample Flow-Rate Monitor	1	††	136
4. Main Stack Effluent			
a. Noble Gas Activity Monitor†	1	††	139
b. Iodine Sampler	1	††	138
c. Particulate Sampler	1	††	138
d. Flow-Rate Monitor	1	††	136
e. Sample Flow-Rate Monitor	1	††	136

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATIONTABLE NOTATIONS

- * During offgas system operation.
- ** Only one train required to be in operation.
- + Includes high range noble gas monitoring capability.
- ++ At all times.

ACTIONS

- ACTION 135 - a. With the number of OPERABLE channels one less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the inoperable channel is placed in the tripped condition within 12 hours.
- b. With the number of OPERABLE channels two less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are taken at least once per 12 hours and these samples are analyzed for gross activity within 24 hours.
- ACTION 136 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided the flow rate for the inoperable channel(s) is estimated at least once per 4 hours.
- ACTION 137 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, operation of the offgas system may continue provided grab samples are collected at least once per 4 hours and analyzed within the following 4 hours.
- ACTION 138 - With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided samples are continuously collected starting within 8 hours of discovery, using auxiliary sampling equipment as required in Table 4.11.2-1.
- ACTION 139 - a. With the number of channels OPERABLE less than required by the Minimum Channels OPERABLE requirement, effluent releases via this pathway may continue provided grab samples are taken at least once per 12 hours and these samples are analyzed for gross activity within 24 hours for a radioactivity limit of detection of at least 1×10^{-4} microcurie/ml.
- b. Restore the inoperable channel(s) to OPERABLE status within 72 hours or in lieu of another report required by Specification 6.9.1, prepare and submit a Special Report to the Commission pursuant to Specification 6.9.2 within 14 days following the event outlining the action taken, the cause of the inoperability and the schedule for restoring the system to OPERABLE status.

TABLE 4.3.7.10-1

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
1. Offgas System					
a. Noble Gas Activity Monitor - Providing Alarm and Automatic Termination of Release	D	NA	R(a,e)	M(b,c)	**
b. System Flow-Rate Measuring Device	D	NA	R	Q	**
c. Sample Flow-Rate Measuring Device		NA	R	Q	**
2. Offgas System Explosive Gas Monitoring System					
a. Hydrogen Monitor Train A	D	NA	Q(d)	M	**
b. Hydrogen Monitor Train B	D	NA	Q(d)	M	**
3. Radwaste/Reactor Building Vent Effluent System					
a. Noble Gas Activity Monitor +	D	M	R(a)	Q(c)	*
b. Iodine Sampler	W	NA	NA	NA	*
c. Particulate Sampler	W	NA	NA	NA	*
d. Flow-Rate Monitor	D	NA	R	Q	*
e. Sample Flow-Rate Monitor	D	NA	R	Q	*

NINE MILE POINT - UNIT 2

3/4 3-100

Amendment No. 30

TABLE 4.3.7.10-1 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING INSTRUMENTATION SURVEILLANCE REQUIREMENTS

<u>INSTRUMENT</u>	<u>CHANNEL CHECK</u>	<u>SOURCE CHECK</u>	<u>CHANNEL CALIBRATION</u>	<u>CHANNEL FUNCTIONAL TEST</u>	<u>MODES IN WHICH SURVEILLANCE REQUIRED</u>
14. Main Stack Effluent					
a. Noble Gas Activity Monitor +	D	M	R(a)	Q(c)	*
b. Iodine Sampler	W	NA	NA	NA	*
c. Particulate Sampler	W	NA	NA	NA	*
d. Flow-Rate Monitor	D	NA	R	Q	*
e. Sample Flow-Rate Monitor	D	NA	R	Q	*

TABLE 4.3.7.10-1 (Continued)

RADIOACTIVE GASEOUS EFFLUENT MONITORING
INSTRUMENTATION SURVEILLANCE REQUIREMENTS

TABLE NOTATIONS

- * At all times.
- ** During offgas system operation.
- † Includes high range noble gas monitoring capability.
- (a) The initial CHANNEL CALIBRATION shall be performed using one or more of the reference standards certified by the National Bureau of Standards (NBS) or using standards that have been obtained from suppliers that participate in measurement assurance activities with NBS, or using actual samples of gaseous effluents that have been analyzed on a system that has been calibrated with NBS traceable sources. These standards shall permit calibrating the system over its intended range of energy and measurement. For subsequent CHANNEL CALIBRATION, sources that have been related to the initial calibration may be used.
- (b) The CHANNEL FUNCTIONAL TEST shall also demonstrate the automatic isolation capability of this pathway and that control room alarm annunciation occurs if the instrument indicates measured levels above the Alarm/Trip Setpoint (Each channel will be tested independently so as to not initiate isolation during operation).
- (c) The CHANNEL FUNCTIONAL TEST shall also demonstrate that control room alarm annunciation occurs if any of the following conditions exists:
 - (1) Instrument indicates measured levels above the alarm setpoint.
 - (2) Circuit failure.
 - (3) Instrument indicates a downscale failure.
 - (4) Instrument controls not set in operate mode.
- (d) The CHANNEL CALIBRATION shall include the use of standard gas samples containing a nominal:
 - (1) One volume percent hydrogen, balance nitrogen, and
 - (2) Four volume percent hydrogen, balance nitrogen.
- (e) The CHANNEL CALIBRATION shall also demonstrate that automatic isolation of this pathway occurs when the instrument channels indicate measured levels above the Trip Setpoint.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 30 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 January 21, 1991, the Niagara Mohawk Power Corporation (the licensee) submitted a request for changes to the Nine Mile Point Nuclear Station, Unit 2, Technical Specifications (TS). The requested changes would modify the TS to require isolation of the offgas system as part of the 18-month channel calibration for the Noble Gas Activity Monitor. With this amendment, actual isolation of the offgas flowpath would not be required during performance of the monthly functional test. The licensee indicated in the January 21, 1991, submittal that inadvertent isolation of the condenser offgas system could occur with the potential for an inadvertent turbine trip. Consequently, unnecessary challenges to plant safety systems could occur.

In addition to changes related to the channel functional testing of the condenser offgas system, the licensee has also proposed revisions to Table 3.3.7.10-1, "Radioactive Gaseous Effluent Monitoring Instrumentation," to reflect the as-built configuration of the noble gas activity monitoring instrumentation.

2.0 EVALUATION

The offgas monitors provide monitoring capability in accordance with 10 CFR Part 20 and provides isolation for this release pathway to prevent exceeding release rate limits as determined in the Offsite Dose Calculation Manual (ODCM). As part of the TS-required surveillance of these monitors, the licensee has been isolating the offgas system as part of the required monthly channel functional test.

However, isolating the condenser offgas during plant operation can result in a loss of condenser vacuum sufficient to cause a plant trip in a short period of time. Thus, testing of these monitors in this fashion could result in an unnecessary plant shutdown and unnecessary challenges to plant safety systems. The requested amendment would require the verification of the isolation capability of each of the two noble gas monitor channels (individually) rather than an actual isolation when performing the monthly channel functional test.

The TS changes proposed by the licensee are consistent with those set forth in NUREG-0123, Revision 4, "Standard Technical Specifications (STS) for General Electric Boiling Water Reactors (BWR/5)." The STS require, for a channel functional test of these monitors, the verification of operability including the alarm and/or trip functions of the channels. However, the STS do not require actual isolations of the offgas system during the required monthly channel functional testing of these monitors. Consequently, we find these changes acceptable since they implement a previously reviewed and approved staff position.

In addition, the licensee has proposed that actual isolation of the offgas flowpath will occur when the instrument channels indicate measured levels above the trip setpoint as part of the channel calibration, which is performed at refueling outage intervals. The staff finds that the demonstration of pathway isolation is not appropriate during reactor operation (in view of the potential for unnecessary plant trips) and that performance of such a surveillance during a refueling outage is a preferable alternative.

The additional changes proposed by the licensee involve a renumbering of certain Action Statements associated with Table 3.3.7.10-1 and a revision to the (currently numbered) Action Statement 136 to reflect the fact that the (condenser offgas) Noble Gas Activity Monitors are configured in a two-out-of-two logic. Consequently, the correct number of Minimum Required Operable Channels for the offgas system - Noble Gas Activity Monitor and Sample Flow-Rate Measuring Device is 2, vice the currently stated Table 3.3.7.10-1 value of 1. The licensee has proposed making the necessary changes, which we find acceptable.

Niagara Mohawk Power Corporation has also proposed revising Table 4.3.7.10-1 to note that the two channels of the Offgas System Noble Gas Monitors are to be tested independently so as to not initiate an isolation during operation. Finally, the licensee has proposed adding footnote (e) to Table 4.3.7.10-1 to specifically require demonstration of the automatic isolation of the condenser offgas flowpath when measured levels exceed the trip setpoint. We find that these changes are necessary to preclude the possibility of inadvertent trips from inadvertent offgas isolations while maintaining an appropriate level of surveillance. Consequently, we find these changes acceptable.

Based on the above, the staff finds that the Technical Specification changes proposed by the licensee in its January 21, 1991, request will provide suitable operability and surveillance requirements for the Radioactive Gaseous Effluent Monitoring Instrumentation. The proposed changes meet our criteria, are suitable for operation with the installed system; and are therefore acceptable.

3.0 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.

4.0 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 the 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 (56 FR 13665). 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.

5.0 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:
K. Eccelston

Date: May 9, 1991

May 9, 1991

Docket No. 50-410

Mr. B. Ralph Sylvia
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Dear Mr. Sylvia:

SUBJECT: ISSUANCE OF AMENDMENT FOR NINE MILE POINT NUCLEAR STATION,
UNIT 2 (TAC NO. 79480)

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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,
ORIGINAL SIGNED BY:

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

Enclosures:

- 1. Amendment No. 30 to NPF-69
- 2. Safety Evaluation

cc w/enclosures:
See next page

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