



## Constellation Nuclear

Nine Mile Point  
Nuclear Station

*A Member of the  
Constellation Energy Group*

January 4, 2002  
NMP2L 2044

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

RE: Nine Mile Point Unit 2  
Docket No. 50-410  
NPF-69

***Subject: Post-LOCA Containment Hydrogen Monitoring (TAC No. MB3040)***

Gentlemen:

This letter relates to a previous request for amendment, dated October 5, 2001, to the Nine Mile Point Unit 2 (NMP2) Operating License (OL) No. NPF-69 regarding containment hydrogen monitoring. In that request, Niagara Mohawk Power Corporation (NMPC), the operating licensee for NMP2 at that time, requested changing the maximum time requirement for establishing containment hydrogen monitoring from "within 30 minutes" to "within 3 hours" of initiating emergency core cooling (safety injection) following a loss of coolant accident (LOCA). The forwarding letter noted that the operational characteristics of the new hydrogen analyzers planned to be installed during the forthcoming refueling outage (RFO8) and a current assessment of post-LOCA operator response time made it necessary to extend the 30-minute hydrogen monitoring requirement. The letter provided justification for the proposed 3-hour requirement and requested that the NRC approve the amendment request by February 1, 2002, so that the analyzer replacement could be implemented during RFO8.

As the result of subsequent discussions with the NRC staff, Nine Mile Point Nuclear Station, LLC (NMPNS) has determined that containment hydrogen monitoring can be established at NMP2 within 90 minutes of initiating emergency core cooling following a LOCA. This 90-minute requirement takes into account (i) 60 minutes for plant operators to complete initial assessment and accident mitigation tasks and strategies, and (ii) 30 minutes for the monitors to provide reliable measurements after mode change from "standby" to "analyze". This requirement is consistent with the requirements previously approved for Vogtle, Units 1 and 2, and Arkansas Nuclear One, Units 1 and 2. Attached is a revision to the amendment request of October 5, 2001, to modify the 3-hour requirement to 90 minutes. Attachment A provides retyped pages from the current NMP2 OL with marginal

ADD1

marking to indicate the area of proposed change. Attachment B is a "marked up" copy of the affected OL page. Attachment C is the revised "No Significant Hazards Consideration Analysis." As this revision is more restrictive than the original request, the previously submitted technical justification is applicable to this revision.

Pursuant to 10 CFR 50.91(b)(1), NMPNS has provided a copy of this revised amendment request and the associated analyses regarding no significant hazard considerations to the appropriate state representative.

I declare under penalty of perjury that the foregoing is true and correct. Executed on January 4, 2002.

Very truly yours,

  
John T. Conway  
Site Vice President

JTC/IAA/cld  
Attachments

cc: Mr. H. J. Miller, NRC Regional Administrator, Region I  
Mr. G. K. Hunegs, NRC Senior Resident Inspector  
Mr. P. S. Tam, Senior Project Manager, NRR (2 copies)  
Mr. John P. Spath  
NYSERDA  
286 Washington Avenue Ext.  
Albany, NY 12203-6399  
Records Management

**ATTACHMENT A**  
**NINE MILE POINT UNIT 2**  
**LICENSE NO. NPF-69**  
**DOCKET NO. 50-410**

**Proposed Changes to the Operating License**

Replace the Operating License pages listed below with the attached revised pages. The revised pages have been retyped in their entirety with marginal marking to indicate changes to the text.

<u>Remove</u>	<u>Insert</u>
6	6
7	7
8	8
9	9

(11) Additional Condition 2

The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 91 shall be as follows:

For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval that begins on the date of implementation of this amendment.

For SRs that existed prior to this amendment whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.

For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance is due at the end of the first surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.

For SRs that existed prior to this amendment whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to the implementation of this amendment.

(11a) Additional Condition 3

The operating licensee shall be capable of establishing containment hydrogen monitoring within 90 minutes of initiating emergency core cooling (safety injection) following a loss of coolant accident.

- (12) On the closing date(s) of the transfer of the NMPC, RG&E, CHGEC, and NYSEG interests in NMP-2 to it, Nine Mile Point Nuclear Station, LLC shall: (1) obtain from the transferors then transferring their interests all of their accumulated decommissioning trust funds for NMP-2, and (2) receive a parent company guarantee pursuant to 10 CFR 50.75(e)(1)(iii)(B) (to be updated annually) in a form acceptable to the NRC and in an amount which, when combined with the decommissioning trust funds for NMP-2 that have been transferred, equals or exceeds the total amounts for NMP LLC's then resulting total ownership share of NMP-2, respectively, pursuant to 10 CFR 50.75(b) and (c).

- (13) The decommissioning trust agreement for NMP-2, at the time any subject direct transfer is effected and thereafter, is subject to the following:

- a. The decommissioning trust agreement must be in a form acceptable to the NRC.
- b. With respect to the decommissioning trust funds, investments in the securities or other obligations of Constellation Energy Group, Inc., New Controlled, or their affiliates, successors, or assigns, are and shall be prohibited. Except for investments tied to market

indexes or other non-nuclear sector mutual funds, investments in any entity owning one or more nuclear power plants are and shall be prohibited.

- c. The decommissioning trust agreement must provide that no disbursements of payments from the trusts, other than for ordinary administrative expenses, shall be made by the trustee unless the trustee has given the NRC 30 days prior written notice of the payment. The decommissioning trust agreement shall further contain a provision that no disbursements or payments from the trusts shall be made if the trustee receives prior written notice of objection from the Director of the Office of Nuclear Reactor Regulation.
  - d. The decommissioning trust agreement must provide that the agreement cannot be amended in any material respect without 30 days prior written notification to the Director of the Office of Nuclear Reactor Regulation.
  - e. The appropriate section of the decommissioning trust agreement shall state that the trustee, investment advisor, or anyone else directing the investments made in the trusts shall adhere to a "prudent investor" standard, as specified in 18 CFR 35.32(a)(3) of the Federal Energy Regulatory Commission's regulations.
- (14) NMP LLC shall take all necessary steps to ensure that the decommissioning trusts are maintained in accordance with the Application for approval of the transfer of the Unit 2 license to NMP LLC (Application), the requirements of the Order approving the transfer, and the related safety evaluation.
- (15) At the time any subject direct transfer is effected, NMP LLC shall enter or shall have entered into an intercompany credit agreement with Constellation Energy Group (CEG), Inc., or New Controlled, whichever entity is the ultimate parent of NMP LLC at that time, in the form and on the terms represented in the Application for license transfer. Should New Controlled become the ultimate parent of NMP LLC following the direct transfer of the license to NMP LLC, NMP LLC shall enter or shall have entered into a substantially identical intercompany credit agreement with New Controlled at the time New Controlled becomes the ultimate parent; in such case, any existing intercompany credit agreement with CEG, Inc. may be canceled once the intercompany credit agreement with New Controlled is established. Except as otherwise provided above, NMP LLC shall take no action to void, cancel, or modify any intercompany credit agreement referenced above, without the prior written consent of the Director of the Office of Nuclear Reactor Regulation.

- D. The facility requires exemptions from certain requirements of 10 CFR Part 50 and 10 CFR Part 70.
- i) An exemption from the critically alarm requirements of 10 CFR Part 70.24 was granted in the Special Nuclear Materials License No. SNM-1895 dated November 27, 1985. This exemption is described in Section 9.1 of Supplement 4 to the SER. This previously granted exemption is continued in this operating license.
  - ii) Exemptions to certain requirements of Appendix J to 10 CFR Part 50 are described in Supplements 3, 4, and 5 to the SER. These include (a) (this item left intentionally blank); (b) an exemption from the requirement of Option B of Appendix J, exempting main steam isolation valve measured leakage from the combined leakage rate limit of 0.6 La. (Section 6.2.6 of SSER 5)\*; (c) an exemption from Option B of Appendix J, exempting the hydraulic control system for the reactor recirculation flow control valves from Type A and Type C leak testing (Section 6.2.6 of SSER 3); (d) an exemption from Option B of Appendix J, exempting Type C testing on traversing incore probe system shear valves. (Section 6.2.6 SSER 4)
  - iii) An exemption to Appendix A to 10 CFR Part 50 exempting the Control Rod Drive (CRD) hydraulic lines to the reactor recirculation pump seal purge equipment from General Design Criterion (GDC) 55. The CRD hydraulic lines to the reactor recirculation pump seal purge equipment use two simple check valves for the isolation outside containment (one side). (Section 6.2.4, SSER 3)
  - iv) A schedular exemption to GDC 2, Appendix A to 10 CFR Part 50, until the first refueling outage, to demonstrate the adequacy of the downcomer design under the plant faulted condition. This exemption permits additional analysis and/or modifications, as necessary, to be completed by the end of the first refueling outage. (Section 6.2.1.7.4, SSER 3)
  - v) A schedular exemption to GDC 50, Appendix A to 10 CFR Part 50 to allow the operating licensee until start-up following the "mini-outage," which is to occur within 12 months of commencing power operation (entering Operational Condition 1), to install redundant fuses in circuits that use transformers for redundant penetration protection in accordance with their letter of August 29, 1986 (NMP2L 0860). (Section 8.4.2, SSER 5)
  - vi) A schedular exemption to 10 CFR 50.55a(h) for the Neutron Monitoring System until completion of the first refueling outage to allow the operating licensee to provide qualified isolation devices for Class 1E/non-1E interfaces described in their letters of June 23, 1987 (NMP2L 1057) and June 25, 1987 (NMP2L 1058). (Section 7.2.2.10, SSER 6).

For the schedular exemptions in iv), v), and vi), above, the operating licensee, in accordance with its letter of October 31, 1986, shall certify that all systems, components, and modifications have been completed to meet the requirements of the

\* The parenthetical notation following the discussion of each exemption denotes the section of the Safety Evaluation Report (SER) and/or its supplements wherein the safety evaluation of the exemption is discussed.

regulations for which the exemptions have been granted and shall provide a summary description of actions taken to ensure that the regulations have been met. This certification and summary shall be provided 10 days prior to the expiration of each exemption period as described above.

The exemptions set forth in this Section 2.D are authorized by law, will not present an undue risk to public health and safety, and are consistent with the common defense and security. These exemptions are hereby granted. The special circumstances regarding each exemption are identified in the referenced section of the Safety Evaluation Report and the supplements thereto. The exemptions in ii) through vi) are granted pursuant to 10 CFR 50.12. With these exemptions, the facility will operate to the extent authorized herein, in conformity with the application, as amended, the provisions of the Act, and the rules and regulations of the Commission.

- E. Nine Mile Point Nuclear Station, LLC shall fully implement and maintain in effect all provisions of the Commission-approved physical security, guard training and qualification, and safeguards contingency plans, including amendments made pursuant to provisions of the Miscellaneous Amendments and Search Requirements revisions to 10 CFR 73.55 (51 FR 27817 and 27822) and to the authority of 10 CFR 50.90 and 10 CFR 50.54(p). The plans, which contain Safeguards Information protected under 10 CFR 73.21, entitled "Nine Mile Point Nuclear Station Physical Security Plan" with revisions submitted through June 9, 1994; "Nine Mile Point Nuclear Station Guard Training and Qualification Plan," with revisions submitted through September 30, 1993; and "Nine Mile Point Nuclear Station Safeguards Contingency Plan," with revisions submitted through October 1, 1992. Changes made in accordance with 10 CFR 73.55 shall be implemented in accordance with the schedule set forth therein.
- F. Except as otherwise provided in the Technical Specifications or Environmental Protection Plan, Nine Mile Point Nuclear Station, LLC shall report any violations of the requirements contained in Section 2.C of this license in the following manner: initial notification shall be made within 24 hours to the NRC Operations Center via the Emergency Notification System, with written followup within 30 days in accordance with the procedures described in 10 CFR 50.73(b), (c), and (e).
- G. Nine Mile Point Nuclear Station, LLC shall implement and maintain in effect all provisions of the approved fire protection program as described in the Final Safety Analysis Report for the facility through Amendment No. 27 and as described in submittals dated March 25, May 7 and 9, June 10 and 25, July 11 and 16, August 19 and 22, September 5, 12, and 23, October 10, 21, and 22, and December 9, 1986, and April 10 and May 20, 1987, and as approved in the SER dated February 1985 (and Supplements 1 through 6) subject to the following provision:

Nine Mile Point Nuclear Station, LLC may make changes to the approved fire protection program without prior approval of the Commission only if those changes would not adversely affect the ability to achieve and maintain safe shutdown in the event of a fire.
- H. The licensees shall have and maintain financial protection of such type and in such amounts as the Commission shall require in accordance with Section 170 of the Atomic Energy Act of 1954, as amended, to cover public liability claims.

**ATTACHMENT B**

**NINE MILE POINT UNIT 2**

**LICENSE NO. NPF-69**

**DOCKET NO. 50-410**

**“Marked-Up” Copy of the Current Operating License with Insert A**



(11) Additional Condition 2

The schedule for performing Surveillance Requirements (SRs) that are new or revised in Amendment No. 91 shall be as follows:

For SRs that are new in this amendment, the first performance is due at the end of the first surveillance interval that begins on the date of implementation of this amendment.

For SRs that existed prior to this amendment whose intervals of performance are being reduced, the first reduced surveillance interval begins upon completion of the first surveillance performed after implementation of this amendment.

For SRs that existed prior to this amendment that have modified acceptance criteria, the first performance is due at the end of the first surveillance interval that began on the date the surveillance was last performed prior to the implementation of this amendment.

For SRs that existed prior to this amendment whose intervals of performance are being extended, the first extended surveillance interval begins upon completion of the last surveillance performed prior to the implementation of this amendment.

INSERT A

(12)

On the closing date(s) of the transfer of the NMPC, RG&E, CHGEC, and NYSEG interests in NMP-2 to it, Nine Mile Point Nuclear Station, LLC shall: (1) obtain from the transferors then transferring their interests all of their accumulated decommissioning trust funds for NMP-2, and (2) receive a parent company guarantee pursuant to 10 CFR 50.75(e)(1)(iii)(B) (to be updated annually) in a form acceptable to the NRC and in an amount which, when combined with the decommissioning trust funds for NMP-2 that have been transferred, equals or exceeds the total amounts for NMP LLC's then resulting total ownership share of NMP-2, respectively, pursuant to 10 CFR 50.75(b) and (c).

(13) The decommissioning trust agreement for NMP-2, at the time any subject direct transfer is effected and thereafter, is subject to the following:

- a. The decommissioning trust agreement must be in a form acceptable to the NRC.
- b. With respect to the decommissioning trust funds, investments in the securities or other obligations of Constellation Energy Group, Inc., New Controlled, or their affiliates, successors, or assigns, are and shall be prohibited. Except for investments tied to market indexes or other non-nuclear sector mutual funds, investments in any entity owning one or more nuclear power plants are and shall be prohibited.

INSERT A

(11a) Additional Condition 3

The operating licensee shall be capable of establishing containment hydrogen monitoring within 90 minutes of initiating emergency core cooling (safety injection) following a loss of coolant accident.

## ATTACHMENT C

### NINE MILE POINT UNIT 2

LICENSE NO. NPF-69

DOCKET NO. 50-410

#### **No Significant Hazards Consideration Analysis (Revised)**

10CFR50.91 requires a licensee requesting an amendment to provide its analysis concerning the issue of no significant hazards consideration using the standards in 10CFR50.92. Nine Mile Point Nuclear Station, LLC (NMPNS) has evaluated this proposed amendment against the standards. Each standard is discussed below:

- (1) The operation of Nine Mile Point Unit 2 in accordance with the proposed amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.**

The Updated Safety Analysis Report (USAR) Chapter 15 accident analyses do not require or take credit for hydrogen monitoring to be established shortly after a loss of coolant accident (LOCA). Post-LOCA hydrogen production occurs over a long period of time, and an extension from "30 minutes" to "90 minutes" for establishing hydrogen monitoring will have a positive impact on the ability of the operators to concentrate on their more immediate actions while having no negative impact on containment integrity or the long-term assessment efforts. Therefore, the proposed license amendment will not involve a significant increase in the probability or consequences of an accident previously evaluated.

- (2) The operation of Nine Mile Point Unit 2 in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated.**

Control room operators use the containment hydrogen monitors following a LOCA to establish hydrogen control measures should it become necessary. The proposed license amendment would not eliminate the requirement to establish hydrogen monitoring, but would allow it to be delayed until those actions required to mitigate the accident and verify proper operation of essential safety equipment have been completed. The proposed extension maintains the requirement to establish hydrogen monitoring well before calculated conditions inside the containment indicate any need to initiate hydrogen control measures. Therefore, the proposed license amendment will not create a new or different kind of accident from any accident previously evaluated.

- (3) The operation of Nine Mile Point Unit 2 in accordance with the proposed amendment will not involve a significant reduction in a margin of safety.**

The need to establish hydrogen control measures will not be present within the first 90 minutes following a LOCA since there will not be significant hydrogen accumulation. By extending the time allowed to establish containment hydrogen monitoring, the operators can remain focused on the actions necessary to mitigate the accident before directing their attention to hydrogen control measures and other long-term actions. The proposed extension maintains the requirement to establish hydrogen monitoring well before calculated conditions inside the containment indicate any need to initiate hydrogen control measures. Therefore, the proposed license amendment will not involve a significant reduction in a margin of safety.

Based on the above, NMPNS concludes that this proposed license amendment does not involve a significant hazards consideration.