

September 7, 2001

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

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNIT NO. 2 - AMENDMENT RE:  
EXIGENT CHANGE TO TECHNICAL SPECIFICATION SURVEILLANCE  
REQUIREMENT 3.6.1.7.2, SUPPRESSION CHAMBER-TO-DRYWELL  
VACUUM BREAKERS (TAC NO. MB2567)

Dear Mr. Mueller:

The Commission has issued the enclosed Amendment No. 98 to Facility Operating License No. NPF-69 for the Nine Mile Point Nuclear Station, Unit No. 2 (NMP2). The amendment consists of changes to the Technical Specifications (TSs) in response to your application dated August 17, 2001.

The amendment would allow a one-time exception to TS Surveillance Requirement (SR) 3.6.1.7.2 for suppression chamber-to-drywell vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B. A note has been added to SR 3.6.1.7.2 stating that function testing of these vacuum breakers is not required to be met for the remainder of Cycle 8.

A copy of the related safety evaluation is also enclosed. Notice of Issuance will be included in the Commission's biweekly *Federal Register* notice.

Sincerely,

**/RA/**

Donna Skay, Project Manager, Section 1  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-410

Enclosures: 1. Amendment No. 98 to NPF-69  
2. Safety Evaluation

cc w/encls: See next page

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NIAGARA MOHAWK POWER CORPORATION

DOCKET NO. 50-410

NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 98  
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 August 17, 2001, 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. 98 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 and shall be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION

**/RA/**

Peter S. Tam, Acting Chief, Section I  
Project Directorate I  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Attachment:  
Changes to the Technical  
Specifications

Date of Issuance: September 7, 2001

ATTACHMENT TO LICENSE AMENDMENT NO. 98

TO FACILITY OPERATING LICENSE NO. NPF-69

DOCKET NO. 50-410

Replace the following page of the Appendix A, Technical Specifications, with the attached revised page. The revised page is identified by amendment number and contains marginal lines indicating the areas of change.

Remove Page

3.6.1.7-3

Insert Page

3.6.1.7-3

**SURVEILLANCE REQUIREMENTS**

SURVEILLANCE	FREQUENCY
<p>SR 3.6.1.7.1</p> <p style="text-align: center;">-----NOTES-----</p> <ol style="list-style-type: none"> <li>1. Not required to be met for vacuum breakers that are open during Surveillances.</li> <li>2. Not required to be met for vacuum breakers open when performing their intended function.</li> </ol> <p style="text-align: center;">-----</p> <p>Verify each vacuum breaker is closed.</p>	<p>14 days</p>
<p>SR 3.6.1.7.2</p> <p style="text-align: center;">-----NOTE-----</p> <p>Not required to be met for vacuum breakers 2ISC*RV35A and 2ISC*RV35B for the remainder of Cycle 8.</p> <p style="text-align: center;">-----</p> <p>Perform a functional test of each vacuum breaker.</p>	<p>31 days</p> <p><u>AND</u></p> <p>Within 12 hours after any discharge of steam to the suppression chamber from the safety/relief valves</p>
<p>SR 3.6.1.7.3</p> <p>Verify the opening setpoint of each vacuum breaker is <math>\leq 0.25</math> psid.</p>	<p>24 months</p>

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 98 TO FACILITY OPERATING LICENSE NO. NPF-69

NIAGARA MOHAWK POWER CORPORATION

NINE MILE POINT NUCLEAR STATION, UNIT NO. 2

DOCKET NO. 50-410

## 1.0 INTRODUCTION

By letter dated August 17, 2001, Niagara Mohawk Power Corporation (the licensee), proposed a license amendment to change the Technical Specifications (TSs) for the Nine Mile Point Nuclear Station, Unit No. 2 (NMP2). The licensee's proposed TS change would allow an exception to a surveillance requirement (SR) to perform a functional test for the 8 months remaining in the current operating cycle for two suppression chamber-to-drywell vacuum breakers. The functional test, which involves cycling each vacuum breaker, is currently performed monthly and following a discharge of steam to the suppression chamber through a safety/relief valve.

The licensee proposed this TS change to accommodate degraded limit switches in the closure indication and permissive logic circuitry for vacuum breaker 2ISC\*RV35A. Performance of the required functional test on this vacuum breaker could result in the inability to verify its closure and could also prevent the functional testing of the other vacuum breaker on the same line, 2ISC\*RV35B. The degraded limit switches and associated circuitry are located in the inerted drywell and cannot be accessed for repair or replacement while at power. Approval of the proposed amendment, needed under exigent circumstances, could prevent a potential forced shutdown due to the inability to perform the functional testing SR or the inability to verify vacuum breaker closure following the test.

## 2.0 BACKGROUND

### 2.1 Description of Vacuum Breakers and Testing and Indication Circuitry

NMP2 has a Mark II containment. In this containment design, the drywell is located above the cylindrical suppression chamber, and the two are separated by the drywell floor. Eight vacuum breakers are mounted on four lines which connect the drywell to the suppression chamber. Each vacuum breaker line has two suppression chamber-to-drywell vacuum breakers which are configured in series. The two vacuum breakers, 2ISC\*RV35A and 2ISC\*RV35B, which would be excepted from the functional test, are located on the same line. A vacuum breaker actuates similarly to a check valve, opening and closing in response to the differential pressure between the drywell and suppression chamber.

For the purposes of testing and closure indication, each vacuum breaker is equipped with three "valve-closed" limit switches which are located around the circumference of the valve disc. The limit switches provide closure indication to the control room, alarm and computer inputs, and

permissive logic for the test circuit. During functional testing, a control circuit with an indicator light in the control room is normally used to provide verification that a vacuum breaker has returned to its fully closed position after being cycled open. The indicator light control circuit is configured such that one contact from each of the three "valve-closed" limit switches is connected in series with a relay. When the vacuum breaker returns to the closed position, the three limit switches close to energize the relay. The relay then opens to extinguish the indicator light, thereby indicating vacuum breaker closure. The staff notes that the indication circuitry is designed so that the failure of a limit switch would provide an "open" indication, thereby failing to the more safe condition.

The permissive logic for the vacuum breaker test circuit prevents both vacuum breakers on a line from being opened simultaneously during functional testing. During testing only, one of the pair of in-series vacuum breakers may be opened in order to verify that the other is capable of maintaining a differential pressure between the drywell and suppression chamber. This test is an alternate method of verifying vacuum breaker closure in order to satisfy SRs for vacuum breaker operability. However, if a limit switch were to fail to the "open" indication, this alternate method for verifying the closure of the affected vacuum breaker would also be precluded by the permissive logic circuitry. Degradation of the limit switches or the associated testing and indication circuitry does not affect the ability of the vacuum breakers to perform their design functions.

## 2.2 Vacuum Breaker Design Functions

The suppression chamber-to-drywell vacuum breakers are designed to allow steam and gases to flow from the suppression chamber into the drywell when suppression chamber pressure exceeds drywell pressure by the vacuum breakers' actuation setpoint of approximately 0.25 psid. By opening upon demand following a rapid depressurization of the drywell, the vacuum breakers limit the negative differential pressure across the drywell floor in order to maintain containment integrity. Both vacuum breakers in three of the four vacuum breaker lines must open in order to satisfy analytical assumptions for a design-basis accident.

Unless suppression chamber pressure exceeds drywell pressure by the actuation setpoint, the vacuum breakers are required to be closed. Vacuum breaker closure is necessary to limit drywell-to-suppression chamber bypass leakage to less than its design value. Bypass leakage would allow steam released into the drywell during an accident to leak directly to the suppression chamber airspace, thus bypassing condensation in the suppression chamber pool. By limiting bypass leakage, closure of the vacuum breakers, when required, contributes to preventing the overpressurization of primary containment. The assumptions made in the NMP2 accident analysis regarding vacuum breaker closure are satisfied when at least one vacuum breaker in each of the four lines is fully closed and capable of reclosing.

Additionally, the vacuum breakers regulate the height of the column of water in the downcomers of the primary containment vent system. The water level in the downcomers is dependent upon the differential pressure between the drywell and suppression chamber. A reduction in drywell pressure in relation to suppression chamber pressure would cause the water level in the downcomers to rise. As a result, the inertia of the water cleared from the downcomers due to a design-basis accident would be increased, resulting in an increased peak drywell pressure and increased suppression pool swell dynamic loads. The actuation setpoint for the vacuum



breakers has been selected to maintain a drywell-to-suppression chamber differential pressure which is consistent with the assumptions made in the NMP2 accident analysis.

### 2.3 Surveillance Requirements (SRs) for Vacuum Breakers

The NMP2 TSs contain three SRs for demonstrating vacuum breaker operability:

SR 3.6.1.7.1 requires that each vacuum breaker be verified as closed every 14 days. Verification of vacuum breaker closure ensures that a significant drywell-to-suppression chamber bypass leakage pathway does not exist. This surveillance is normally performed by observing the vacuum breaker position indication in the control room. However, it may also be satisfied for each vacuum breaker by verifying that a differential pressure is maintained between the drywell and suppression chamber while the other vacuum breaker on the line is opened. SR 3.6.1.7.1 would not be affected by the proposed change.

SR 3.6.1.7.2 requires that a functional test be performed on each vacuum breaker every 31 days and within 12 hours of a discharge of steam to the suppression chamber from a safety/relief valve (SRV). Functionality is demonstrated by cycling each vacuum breaker to ensure it can open and close in order to satisfy its design functions. During power operation, the vacuum breakers are cycled open from the control room using a pneumatic actuator, and the control room indicator light is normally used to verify that they have returned to the fully closed position. However, similar to SR 3.6.1.7.1, vacuum breaker closure can also be verified by opening the other vacuum breaker on the line and verifying that a drywell-to-suppression chamber differential pressure is maintained. The proposed TS change would permit vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B to be excepted from SR 3.6.1.7.2 for the 8 months remaining in the current operating cycle.

SR 3.6.1.7.3 requires that the opening setpoint of each vacuum breaker be verified every 24 months. The licensee has stated that the proper setpoints were verified during the last refueling outage. SR 3.6.1.7.3 would not be affected by the proposed change.

### 2.4 Justification for Proposed TS Change

The licensee has stated that at least one "valve-closed" limit switch on vacuum breaker 2ISC\*RV35A is degraded. Though vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B are both currently verified to be closed and operable, future performance of the functional test required by SR 3.6.1.7.2 could result in the inability to verify the closure of vacuum breaker 2ISC\*RV35A and the inability to perform SR 3.6.1.7.2 on vacuum breaker 2ISC\*RV35B. Performance of the functional test on vacuum breaker 2ISC\*RV35A could precipitate a failure of the degraded limit switches to provide normal closure indication to the control room. Should limit switch failure occur, the faulty input to the permissive testing logic circuitry would also prevent vacuum breaker 2ISC\*RV35B from being cycled. Thus, vacuum breaker 2ISC\*RV35B would then be unable to satisfy SR 3.6.1.7.2, and both methods for verifying the closure of vacuum breaker 2ISC\*RV35A would be lost. Either of these conditions would result in a TS-required unit shutdown.

The licensee's proposed TS change would provide an 8-month exception for the required monthly performance of SR 3.6.1.7.2 on vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B. In addition, for this 8-month period, the licensee would be excepted from performing SR 3.6.1.7.2

on these two vacuum breakers following the discharge of steam to the suppression chamber from an SRV.

### 3.0 EVALUATION

#### 3.1 Analysis of Proposed TS Change

The licensee has considered the effect of the proposed 8-month surveillance exception on the mechanical reliability of the vacuum breakers. The body, flapper, and hinge pin of the vacuum breakers at NMP2 are constructed of stainless steel, which provides resistance to corrosion. Additional resistance to corrosion is provided by the inerted environment of the primary containment. Under normal conditions, the vacuum breakers remain stationary in the closed position, and thus their moveable components are not subject to adverse physical wear. The vacuum breakers are also equipped with magnetic latching devices in order to minimize vibrational wear. Therefore, the Nuclear Regulatory Commission (NRC) staff concludes that the vacuum breakers are not subject to significant mechanical degradation under normal operating conditions.

Inservice testing (IST) of the vacuum breakers is required by the American Society of Mechanical Engineers Code (ASME Code) through Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.55a. The licensee has stated that the applicable ASME Code requirement, Section 1.3.4.1(b) of OMa-1988, stipulates that each vacuum breaker is to be tested every 10 years with a minimum of 20% of the total tested within any 48-month period. However, the licensee has stated that the IST is actually performed every 24 months at NMP2. The IST includes verification of proper opening and closing, setpoint verification, leakage testing, and testing of closure-sensing accessories. Additionally, the licensee has stated that, in the technical manual for the NMP2 vacuum breakers, the vendor recommends a 24-month testing frequency. Therefore, the staff concludes that the proposed 8-month exception to SR 3.6.1.7.2 for the two vacuum breakers would not deviate from the above ASME Code IST requirement or vendor recommendations.

The licensee has also considered the effect on vacuum breaker reliability of an SRV discharging steam to the suppression chamber. Performance of a vacuum breaker functional test within 12 hours of a discharge of steam from the SRVs was recommended by the NRC staff in Generic Letter 93-05. However, the vacuum breakers are designed to function in expected accident conditions, and the licensee does not expect that the discharge of steam from an SRV would affect their functionality. In support of this position, the licensee has stated that, during a 1998 transient, a steam discharge from the SRVs at NMP2 resulted in the opening of vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B. Subsequent testing verified that these vacuum breakers remained operable afterward. This event provides assurance that the actuation of an SRV during the proposed 8-month exception period would likely not prevent the vacuum breakers from performing as designed. The staff further notes that the closure of each vacuum breaker must be verified every 14 days in accordance with SR 3.6.1.7.1. An inability to verify the closure of each vacuum breaker in accordance with SR 3.6.1.7.1, for any reason, would necessitate a unit shutdown.

### 3.2 Vacuum Breaker Operating Experience

The licensee performed a review of NMP2 deviation event reports and other plant records applicable to the suppression chamber-to-drywell vacuum breakers and did not identify any instances where mechanical problems have prevented the vacuum breakers from opening or closing when demanded. However, the licensee states that past failures of the permissive logic and closure indication circuitry have been experienced due to degraded limit switches. The licensee additionally reviewed industry-wide failure data for the model of vacuum breaker used at NMP2 (GPE Controls N/A Model LD240-496). No failures to open upon demand due to mechanical problems were identified. However, the review did find that, in the past 13 years, there have been two instances when this model of vacuum breaker failed to close for reasons other than the failure of the testing and indication equipment. These two instances have been attributed to inadequate maintenance. The licensee has reviewed NMP2 preventive maintenance procedures and concluded that the operational problems experienced at other plants have been addressed at NMP2 through appropriate component replacement intervals. Based on the licensee's review of data from NMP2 and plants with identical vacuum breakers, the NRC staff concludes that operating experience has shown that this model of vacuum breaker is highly reliable.

The NRC staff has additionally reviewed NUREG-1366, "Improvements to Technical Specifications Surveillance Requirements," published in December 1992. In Section 8.4 of this document, industry-wide vacuum breaker functional testing is discussed. NUREG-1366 does not contain details about specific models of vacuum breakers, and its data set was largely gathered in the 10 years before NMP2 began operation. However, the staff believes the following two findings from this document are relevant: (1) many cases of vacuum breaker inoperability were caused by faulty closure-sensing accessories, and (2) only a few plants accounted for a significant number of the vacuum breaker failures experienced. Based on these findings from NUREG-1366, the staff has additional confidence that the past mechanical reliability of the vacuum breakers at NMP2 is indicative of future reliability.

### 3.3 Additional Considerations

The licensee has performed a review to identify any operational and maintenance activities that could affect the reliability of the vacuum breakers during the remainder of the current operating cycle. Based on this review, the licensee concluded that only the required quarterly surveillance on the reactor core isolation cooling (RCIC) pump (SR 3.5.3.3) would discharge steam to the suppression chamber during testing. However, the licensee has stated that previous testing has not resulted in significant increases in the suppression chamber pressure, temperature, or humidity. Furthermore, as this surveillance is required to be performed during power operation, appropriate precautions are taken to minimize its impact upon safety-related equipment. Therefore, the NRC staff concludes that the required RCIC pump surveillance test is not expected to adversely affect the operability of the vacuum breakers.

The licensee plans to replace the vacuum breaker limit switches with a new design during the upcoming refueling outage. The licensee has additionally stated that, should an outage of sufficient duration occur in the current operating cycle, the degraded limit switches would be repaired or replaced, and functional testing of vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B would be resumed.

#### 4.0 SUMMARY

Based upon the findings documented in Section 3.0 above, the NRC staff concludes that the most recent 24-month IST and the prior successful completions of SR 3.6.1.7.2 during the current operating cycle provide sufficient assurance of the functionality of vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B for the remainder of the current cycle. Therefore, the NRC staff finds the proposed TS change to except vacuum breakers 2ISC\*RV35A and 2ISC\*RV35B from SR 3.6.1.7.2 for the remainder of the current operating cycle to be acceptable.

#### 5.0 EXIGENT CIRCUMSTANCES

The NRC staff has made a determination that exigent circumstances exist with regard to issuance of this license amendment, in response to the licensee's application dated August 17, 2001, as defined in Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.91(a)(6). In this regard, the licensee only became aware of the intermittent operation of the limit switches associated with vacuum breaker 2ISC\*RV35A during the last functional test on July 30, 2001, and promptly submitted an amendment application. Future performance of the functional tests on this vacuum breaker could cause failure of the position indication. Also, use of the alternate pressure testing method for verifying closure may not be possible because the permissive logic inputs from the vacuum breaker are not operating correctly. Loss of the ability to verify that the vacuum breakers are closed would require NMP2 to be placed in Mode 3 within 84 hours and Mode 4 within the following 24 hours. The limit switches cannot be repaired, replaced, or bypassed online. Per the current TSs, the next required functional test must be performed by September 7, 2001 (i.e., 31 days plus 25% from July 30, 2001). Therefore, an exigent review is needed to avoid a potential unnecessary plant shutdown.

#### 6.0 FINAL NO SIGNIFICANT HAZARDS CONSIDERATION DETERMINATION

The Commission's regulations in 10 CFR 50.92 state that the Commission may make a final determination that a license amendment involves no significant hazards consideration if operation of the facility, in accordance with the amendment, would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated, or (2) create the possibility of a new or different kind of accident from any accident previously evaluated, or (3) involve a significant reduction in a margin of safety. As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented 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.

Proper functioning of the suppression chamber-to-drywell vacuum breakers is required for accident mitigation. Failure of the vacuum breakers is not assumed as an accident initiator for any accident previously evaluated. Therefore, any potential failure of a vacuum breaker to perform when necessary will not affect the probability of an accident previously evaluated.

During a LOCA [loss-of-coolant accident], the vacuum breakers are assumed to initially be closed to limit drywell-to-suppression chamber bypass leakage and

must be capable of reclosing following a suppression pool swell event. The vacuum breakers open to prevent an excessive negative differential pressure across the suppression chamber-to-drywell boundary. The proposed change will not affect the capability of the vacuum breakers to perform their open and closed safety functions. Therefore, all four vacuum breaker pairs will remain operable and available to mitigate the consequences of a LOCA. Accordingly, the proposed amendment will not significantly increase the 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.

The suppression chamber-to-drywell vacuum breakers are used to mitigate the potential consequences of an accident. The proposed change does not affect the capability of the vacuum breakers to perform their open and closed safety functions. Thus, the initial conditions assumed in the accident analysis are not affected. Since the vacuum breakers have demonstrated high reliability, proper functioning of the four vacuum breaker pairs is assured in order to satisfy the current accident analysis. The proposed amendment does not involve a change to plant design and does not involve any new modes of operation or testing methods. Accordingly, the vacuum breakers will continue to perform their accident mitigation safety functions as previously evaluated. Therefore, operation with the proposed amendment will not create the possibility of 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 deferral of functional testing for one vacuum breaker pair for the remainder of Cycle 8 is not risk significant, in that the increase in core damage frequency and large early release frequency were found to be less than  $10^{-8}/\text{yr}$ . The vacuum breakers are not modified by the proposed amendment. Reviews of vacuum breaker failure history show that the vacuum breakers have a high reliability to open or close when necessary. Thus, both vacuum breakers in each of the four vacuum breaker lines are expected to remain available to perform their accident mitigation safety functions. Furthermore, the 14-day surveillance that verifies the vacuum breakers are closed will continue to be performed to ensure a potential bypass leakage path is not present. Accordingly, all four vacuum breaker pairs are considered operable. The accident analysis assumptions for the closed safety functions of the vacuum breakers are satisfied when at least one vacuum breaker in each of the four vacuum breaker lines are fully closed and capable of reclosing following a suppression pool swell event. The additional vacuum breaker in each line satisfies the single failure criterion. The open safety function of the vacuum breakers is satisfied when three of the four vacuum breaker pairs open during a design basis accident. The fourth vacuum breaker pair satisfies the single failure criterion. Since all of the vacuum breakers are considered operable and available to perform their open and closed

safety functions, the proposed change will not involve a significant reduction in a margin of safety.

Based on the above considerations, the NRC staff concludes that the amendment meets the three criteria of 10 CFR 50.92. Therefore, the staff has made a final determination that the proposed amendment does not involve a significant hazards consideration.

## 7.0 STATE CONSULTATION

In accordance with the Commission's regulations, New York State official, Mr. Jack Spath, was notified of the proposed issuance of the amendment. Mr. Spath had no comments.

## 8.0 PUBLIC COMMENTS

In accordance with 10 CFR 50.91(a)(6)(i)(A), the NRC staff published a notice in the *Federal Register* (66 FR 44653, dated August 24, 2001) regarding this requested amendment to be issued under exigent circumstances. As a result, the NRC staff received an electronically transmitted letter from Mr. Thomas Gurdziel on September 1, 2001. This letter has been filed in the NRC Agencywide Document Access and Management System (ADAMS) and is accessible under Accession No. ML012480014. Subsequent electronic messages exchanged between the NRC staff and Mr. Gurdziel are accessible at Accession No. ML012480021. While the evaluation above addresses Mr. Gurdziel's concerns, the following paragraphs provide specific answers to his questions.

### Comment 1

Mr. Gurdziel provided three paragraphs describing the design functions of the suppression chamber-to-drywell vacuum breakers at NMP2.

### NRC Staff Response

Mr. Gurdziel's description of the pressure-suppression function of the NMP-2 primary containment is accurate except that at NMP2 (and other boiling-water reactors (BWRs)), the discharge of a primary coolant system safety/relief valve is piped to the suppression chamber pool, not the drywell atmosphere. An uncontrolled discharge of primary steam to the drywell of a BWR could only be the result of a loss-of-coolant accident. The NRC staff's description of the design functions of the NMP2 vacuum breakers is provided in Section 2.2 above.

### Comment 2

Mr. Gurdziel stated that it is inappropriate for NMP2 to operate at full power for the remainder of the current cycle "with one identified pair of vacuum breakers inoperable and no compensating measures proposed." He additionally suggested increased testing of the other vacuum breakers or a reduction in reactor power as potential compensatory measures.

### NRC Staff Response

According to the definition of operability in the NMP2 TSs, the two suppression chamber-to-drywell vacuum breakers affected by the degraded limit switches would not currently be considered inoperable. The vacuum breakers are capable of performing their design functions and have currently passed all required surveillance tests which are used to demonstrate operability. The proposed TS change would except the two vacuum breakers from a functional test for the remainder of the current operating cycle. These vacuum breakers would be considered operable for the remainder of the current cycle.

As discussed in Section 2.0 above, the degraded limit switches provide closure indication only and do not impair the capability of their associated vacuum breakers to perform their design functions. It is possible that allowing an exception to the functional testing of these two vacuum breakers would slightly decrease the assurance that they would function upon demand. However, as discussed in Section 3.0 above, the NRC staff has found that there would still be sufficient assurance of the two vacuum breakers' functionality for the remainder of the current operating cycle based upon their durable construction, inerted environment, history of reliability, and prior testing.

Because the vacuum breakers affected by the degraded limit switches are considered operable, and there is sufficient assurance that they are capable of performing their design functions, the NRC staff concludes that the proposed functional test exception does not require compensatory action.

### Comment 3

Mr. Gurdziel stated that the NRC staff's notice of consideration did not include a statement that the licensee would fix the degraded limit switches if an outage of sufficient length were to occur.

### NRC Staff Response

This comment has been addressed in Section 3.3 above.

### Comment 4

Mr. Gurdziel stated that the NRC staff's notice of consideration did not discuss any "action to be taken if another pair of vacuum breakers would be found to be inoperable" during the current cycle.

### NRC Staff Response

The NMP2 TSs cover this eventuality. According to Limiting Condition for Operation (LCO) 3.6.1.7, the maximum time that a vacuum breaker may be inoperable during power operation is 72 hours. If LCO 3.6.1.7 cannot be satisfied, NMP2 is required to enter Mode 3 (Hot Shutdown) within 12 hours, and Mode 4 (Cold Shutdown) within the following 24 hours. The inoperable vacuum breaker would then be required to be restored to operable status before a return to power operation would be permitted. The NMP2 TSs also contain additional, more restrictive, provisions for cases of increased safety significance, such as the inoperability of vacuum breakers in multiple lines or two vacuum breakers in a line being unable to close.

## 9.0 ENVIRONMENTAL CONSIDERATION

The amendment changes a surveillance requirement. 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 made a final finding that the amendment involves no significant hazards consideration. 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.

## 10.0 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.

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