



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

April 5, 2012

Mr. Timothy J. O'Connor  
Site Vice President  
Monticello Nuclear Generating Plant  
Northern States Power Company - Minnesota  
2807 West County Road 75  
Monticello, MN 55362-9637

SUBJECT: MONTICELLO NUCLEAR GENERATING PLANT – CLOSEOUT OF BULLETIN  
2011-01, "MITIGATING STRATEGIES" (TAC NO. ME6452)

Dear Mr. O'Connor:

On May 11, 2011, the Nuclear Regulatory Commission (NRC) issued Bulletin 2011-01, "Mitigating Strategies," to all holders of operating licenses for nuclear power reactors, except those that have permanently ceased operation and have certified that fuel has been removed from the reactor vessel. The purpose of the bulletin was to obtain a comprehensive verification that licensees' mitigating strategies to maintain or restore core cooling, spent fuel cooling, and containment following a large explosion or fire were compliant with Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(hh)(2).

The bulletin required two sets of responses pursuant to the provisions of 10 CFR 50.54(f). Northern State Power Company – Minnesota (NSPM) provided its responses to the bulletin by letters dated June 10 and July 7, 2011. The NRC staff has reviewed the information submitted and concludes that NSPM's response to the bulletin is acceptable. As summarized in the enclosure, the NRC staff verified that NSPM provided the information requested in the bulletin. No further information or actions under the bulletin are requested.

Sincerely,

A handwritten signature in black ink that reads "Peter S. Tam".

Peter S. Tam, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-263

Enclosure: As stated

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SUMMARY OF BULLETIN 2011-01, "MITIGATING STRATEGIES" RESPONSE REVIEW

BY THE OFFICE OF NUCLEAR REACTOR REGULATION

NORTHERN STATES POWER COMPANY

MONTICELLO NUCLEAR GENERATING PLANT

DOCKET NO. 50-263

1.0 INTRODUCTION

On May 11, 2011, the Nuclear Regulatory Commission (NRC) issued Bulletin 2011-01, "Mitigating Strategies" (Accession No. ML111250360) to all holders of operating licenses for nuclear power reactors, except those that have permanently ceased operation and have certified that fuel has been removed from the reactor vessel. The bulletin required two sets of responses pursuant to the provisions of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(f). The first responses were due 30 days after issuance of the bulletin.

By letter dated June 10, 2011 (Accession No. ML111610264), Northern States Power Company (the licensee) provided its response to the first set of questions (first response) for Monticello Nuclear Generating Plant (MNGP). The second set of response was due 60 days after issuance of the bulletin. By letter dated July 7, 2011 (Accession No. ML111890202), the licensee provided its response to the second set of questions (second response). As summarized below, the NRC staff has verified that the licensee provided the information requested in the bulletin.

2.0 BACKGROUND

On February 25, 2002, the NRC issued an order, EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures" (the ICM Order). Section B.5.b of the ICM Order required licensees to develop specific guidance and strategies to maintain or restore core cooling, containment, and spent fuel pool cooling capabilities using readily available resources (equipment and personnel) that can be effectively implemented under the circumstances associated with the loss of large areas of the plant due to explosions or fire.

By letter dated August 23, 2007 (Accession No. ML072330067), the NRC staff issued its Safety Evaluation (SE) to document the final disposition of information submitted by the licensee regarding Section B.5.b of the ICM Order. Along with the SE, the NRC staff issued a conforming license condition to incorporate the B.5.b mitigating strategies into the licensing MNGP basis.

On March 27, 2009, the NRC issued 10 CFR 50.54(hh)(2) as a new rule, in order to capture the B.5.b mitigating strategies and related license conditions as regulatory requirements for both current and future licensees. At that time, licensee compliance with the conforming license conditions was sufficient to demonstrate compliance with 10 CFR 50.54(hh)(2) (74 FR 13926) so no further actions were required on the part of current licensees.

### 3.0 30-DAY REQUEST

In order to confirm continued compliance with 10 CFR 50.54(hh)(2), the bulletin requested that licensees address the following two questions within 30 days of issuing the bulletin:

1. Is the equipment necessary to execute the mitigating strategies, as described in your submittals to the NRC, available and capable of performing its intended function?
2. Are the guidance and strategies implemented capable of being executed considering the current configuration of your facility and current staffing and skill levels of the staff?

The NRC staff reviewed the licensee's first response to determine if it had adequately addressed these questions.

#### 3.1 Question 1: Availability and Capability of Equipment

In its first response, the licensee confirmed that the equipment it needs to execute the 10 CFR 50.54(hh)(2) mitigating strategies is available and capable of performing its intended function. The NRC staff verified that this confirmation covered equipment needed for each of the three phases of B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

#### 3.2 Question 2: Guidance and Strategies Can Be Executed

In its first response, the licensee confirmed that the guidance and strategies it has implemented for 10 CFR 50.54(hh)(2) are capable of being executed considering the current facility configuration, staffing levels, and staff skills. Since the licensee has considered its current facility configuration, staffing levels, and staff skills, and confirmed that it can execute its implemented guidance and strategies, the NRC staff finds that the licensee has adequately responded to Question 2.

### 4.0 60-DAY REQUEST

The bulletin required a response to the following five questions within 60 days of issuing the bulletin:

1. Describe in detail the maintenance of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it is functional when needed.
2. Describe in detail the testing of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it will function when needed.
3. Describe in detail the controls for ensuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is ensured so that strategies remain feasible.
5. Describe in detail how you ensure availability of offsite support.

The NRC staff reviewed the licensee's second response to determine if it had adequately addressed these questions. The NRC staff also reviewed the August 23, 2007, SE to determine what equipment, training, and offsite resources at Monticello were relied upon by NRC staff to conclude that the licensee's actions would ensure compliance with Section B.5.b of the ICM Order and the conforming license condition.

#### 4.1 Questions 1 and 2: Maintenance and Testing of Equipment

Questions 1 and 2 of the 60-day request required licensees to describe in detail the maintenance and testing of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it is functional when needed. In its second response, Monticello listed the equipment used to support the 10 CFR 50.54(hh)(2) mitigating strategies which receives maintenance or testing. For each item, the licensee described the maintenance and testing performed, including the frequency and basis for the maintenance or testing activity.

The NRC staff verified that the licensee listed equipment that typically requires maintenance or testing which was relied upon to make conclusions in the SE or commonly needed to implement the mitigating strategies. In its second response, the licensee stated that the portable pump, portable power supply, hoses, monitors, nozzles, and communications equipment receive maintenance or testing. The NRC staff noted that refueling of the portable pump is a periodic maintenance activity. The licensee also identified other items that support the mitigating strategies that receive maintenance or testing.

The NRC staff verified that the licensee described the process used for corrective actions and listed the testing performed to ensure that the strategies were initially feasible. The licensee stated in its second response that its 10 CFR Part 50, Appendix B, corrective action program is used to document equipment failure, establish priorities, and perform trending.

Based upon the information above, the NRC staff finds that the licensee has provided the information requested by Questions 1 and 2.

#### 4.2 Question 3: Controls on Equipment

Question 3 of the 60-day request required licensees to describe in detail the controls on equipment, such as inventory requirements, to ensure that the equipment is available when needed. A list of inventory deficiencies and associated corrective actions to prevent loss was also requested.

The NRC staff verified that the licensee described its process for ensuring that B.5.b equipment will be available when needed. In its second response, the licensee identified equipment included in its inventory, the inventory frequency, storage requirements, and items verified. Items verified include proper quantity and location of equipment. The licensee also states that the storage locations are controlled. The licensee states that at the time of its second response there were no outstanding inventory deficiencies that would render the strategies not viable.

The NRC staff verified that Monticello inventoried equipment which was relied upon to make conclusions in the SE or commonly needed to implement the mitigating strategies. In its

second response, the licensee stated that procured non-permanently installed B.5.b equipment is inventoried at least annually in accordance with station procedures. The second response specifically states that the following items are included in the inventory: portable pump; trucks; portable power supplies; hoses; communications equipment; monitors and nozzles; connectors; nitrogen bottles; tools; instruments; and firefighter turnout gear. The licensee also identified other items that support the mitigating strategies that are inventoried.

Based upon the information above, the NRC staff finds that the licensee has provided the information requested by Question 3.

#### 4.3 Question 4: Configuration and Guidance Management

Question 4 of the 60-day request required licensees to describe in detail how configuration and guidance management is assured so that the strategies remain feasible.

The NRC staff verified that the licensee described its measures to evaluate plant configuration changes for their effects on the mitigating strategies and to ensure its procedures are current. In its second response, the licensee stated that plant configuration changes are procedurally evaluated against the licensing basis, which includes the B.5.b mitigating strategies. The licensee states that the design change process requires a review of affected procedures and that procedure changes are validated to ensure that the B.5.b mitigating strategies remain viable.

The NRC staff verified that the licensee described measures it has taken to validate the procedures or guidelines developed to support the mitigating strategies. In its second response, the licensee identified testing in response to Question 2 that demonstrated the ability to execute some strategies. The licensee also states that "initially, mitigating strategies were validated by walkdowns, engineering evaluations and/or table top reviews" and they were similarly revalidated in 2011.

The NRC staff verified that the licensee described the training program implemented in support of the mitigating strategies and how its effectiveness is evaluated. In its second response, the licensee identified the training provided to its operations personnel, key decision makers within the emergency response organization, security personnel, and fire brigade. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluating.

Based upon the information above, the NRC staff finds that the licensee has provided the information requested by Question 4.

#### 4.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured.

The NRC staff verified that the licensee listed the offsite organizations it relies upon for emergency response, including a description of agreements and related training. The NRC staff compared the list of offsite organizations that the licensee provided in its second response

with the information relied upon to make conclusions in the SE. The licensee stated that it maintains letters of agreement with these offsite organizations, which are reviewed annually. The licensee also described the training and site familiarization it provides to these offsite organizations. The licensee stated that it reviewed its corrective action program and found no issues involving lapsed agreements related to offsite support for B.5.b events.

Based upon the information above, the NRC staff finds that the licensee has provided the information requested by Question 5.

#### 5.0 CONCLUSION

As described above, the NRC staff has verified that the licensee for Monticello has provided the information requested in Bulletin 2011-01. Specifically, the licensee responded to each of the questions in the bulletin as requested. The NRC staff concludes that the licensee has completed all of the requirements of the bulletin and no further information or actions under the bulletin are needed.

Principal Contributor: Blake Purnell

Date: April 5, 2012

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Mr. Timothy J. O'Connor  
Site Vice President  
Monticello Nuclear Generating Plant  
Northern States Power Company - Minnesota  
2807 West County Road 75  
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Sincerely,

/RA/

Peter S. Tam, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

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