



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

June 14, 2012

Mr. Michael J. Pacilio
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: OYSTER CREEK NUCLEAR GENERATING STATION - CLOSEOUT OF
BULLETIN 2011-01, "MITIGATING STRATEGIES" (TAC NO. ME6460)

Dear Mr. Pacilio:

On May 11, 2011, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 2011-01, "Mitigating Strategies" (Agencywide Documents Access and Management System (ADAMS) 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 purpose of the Bulletin 2011-01 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).

Bulletin 2011-01 required two sets of responses pursuant to the provisions of 10 CFR 50.54(f). Oyster Creek Nuclear Generating Station provided its responses to Bulletin 2011-01 by letters dated June 8, and July 8, 2011 (ADAMS Accession Nos. ML111600096 and ML111920162). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC staff sent the licensee a request for additional information (RAI) on its July 8, 2011, response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139).

The NRC staff has reviewed the information submitted by Oyster Creek Nuclear Generating Station, and concludes that its response to Bulletin 2011-01 is acceptable. As summarized in the enclosure, NRC staff verified that the licensee provided the information requested in Bulletin 2011-01. The NRC staff has determined that no further information or actions under Bulletin 2011-01 are requested. This closes out the NRC staff review Bulletin 2011-01 for Oyster Creek Nuclear Generating Station under TAC No. ME6460.

M. Pacilio

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If you have any questions regarding this letter, please feel free to contact John G. Lamb, Senior Project Manager at (301) 415-3100 or John.Lamb@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Meena Khanna', with a long horizontal flourish extending to the right.

Meena Khanna, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure:
As stated

cc w/encl: Distribution via Listserv

SUMMARY OF NRC REVIEW OF LICENSEE'S RESPONSES

TO NRC BULLETIN 2011-01, "MITIGATING STRATEGIES"

OYSTER CREEK NUCLEAR GENERATING STATION

DOCKET NO. 50-219

1.0 INTRODUCTION

On May 11, 2011, the U.S. Nuclear Regulatory Commission (NRC) issued Bulletin 2011-01, "Mitigating Strategies," (Agencywide Documents Access and Management System (ADAMS) 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 8, 2011 (ADAMS Accession No. ML111600096), Oyster Creek Nuclear Generating Station (Oyster Creek or licensee) provided its response to this first set of questions (first response). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Oyster Creek provided its response to this second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC staff sent a request for additional information (RAI) on the second response. Oyster Creek responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). As summarized below, the NRC staff has verified that Oyster Creek provided the information requested in the bulletin.

2.0 BACKGROUND

On February 25, 2002, the NRC issued EA-02-026, "Order for Interim Safeguards and Security Compensatory Measures" (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 9, 2007 (ADAMS Accession No. ML072180014), the NRC staff issued its Safety Evaluation (SE) to document the final disposition of information submitted by Oyster Creek regarding Section B.5.b of the ICM Order. Along with the SE, the staff issued a conforming license condition to incorporate the B.5.b mitigating strategies into the licensing 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.

Enclosure

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 Oyster Creek's first response to determine if it had adequately addressed these questions. A summary of the staff's review is provided below.

3.1 Question 1: Availability and Capability of Equipment

In its first response, Oyster Creek 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 the equipment needed for each of the three phases of the B.5.b mitigation strategies. Therefore, the NRC staff finds that Oyster Creek has adequately responded to Question 1.

3.2 Question 2: Guidance and Strategies Can Be Executed

In its first response, Oyster Creek 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's skills. Since Oyster Creek has considered its current facility configuration, staffing levels, and staff's skills, and confirmed that it can execute its implemented guidance and strategies, the NRC staff finds that Oyster Creek 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 Oyster Creek's submittals to determine if it had adequately addressed these questions. This was accomplished by verifying that the submittals listed the equipment, training, and offsite resources which were relied upon to make conclusions in the August 9, 2007, SE or are commonly needed to implement the mitigating strategies. The NRC staff reviewed Oyster Creek's responses to the questions to determine if it had adequately addressed these questions. A summary of the NRC staff's review is provided below.

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, Oyster Creek listed the equipment used to support the 10 CFR 50.54(hh)(2) mitigating strategies which receives maintenance or testing. For each item, Oyster Creek described the maintenance and testing performed, including the frequency and basis for the maintenance or testing activity.

The NRC staff verified that Oyster Creek listed the 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, Oyster Creek stated that the portable pump, portable power supply, hoses, nozzles, and communications equipment receive maintenance or testing. The NRC staff noted that the fuel for the portable pump is changed during maintenance. Oyster Creek also identified other items that support the mitigating strategies that receive maintenance or testing.

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

Based upon the information above, the NRC staff finds that Oyster Creek 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 Oyster Creek described its process for ensuring that B.5.b equipment will be available when needed. In its second response, Oyster Creek identified the equipment included in its inventory, the inventory frequency, storage requirements, and items verified. Items verified include proper quantity, location, and accessibility of equipment and controls on storage locations. Oyster Creek stated that at the time of its second response, there were no outstanding inventory deficiencies that would render the strategies not viable. Oyster

Creek identified some past inventory deficiencies involving the B.5.b equipment, which were corrected and measures were put in place to prevent recurrence.

The NRC staff verified that Oyster Creek inventoried equipment which was relied upon to make conclusions in the SE or commonly needed to implement the mitigating strategies. In its second response, Oyster Creek 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: tow vehicle; portable hoses; communications equipment; spray nozzles; and connectors. The portable pump, firefighter turnout gear, and portable power supply were not listed as items which are inventoried, but they undergo maintenance and testing which would also ensure their availability. Oyster Creek also identified other items that support the mitigating strategies that are inventoried.

Based upon the information above, the NRC staff finds that Oyster Creek 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 Oyster Creek 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, Oyster Creek stated that plant configuration changes are procedurally evaluated against the licensing basis, which includes the B.5.b mitigating strategies. Oyster Creek 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 Oyster Creek described measures it has taken to validate the procedures or guidelines developed to support the mitigating strategies. In its second response, Oyster Creek identified testing in response to Question 2 that demonstrated the ability to execute some strategies. Oyster Creek also states that "initially, mitigating strategies were validated by walk downs, Engineering evaluations and/or table top reviews," and they were similarly revalidated in 2011. In addition, the B.5.b-related procedures are walked down for accuracy at least every 3 years.

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

Based upon the information above, the NRC staff finds that Oyster Creek 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 Oyster Creek 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 Oyster Creek provided in its second response with the information relied upon to make conclusions in the SE. The NRC staff noted that Oyster Creek did not identify any local law enforcement agencies in its second response. In its RAI response, Oyster Creek described how it ensures the availability of a local law enforcement agency to respond to a B.5.b event. Oyster Creek stated that it maintains a memorandum of understanding or other types of agreements with these offsite organizations, which are reviewed annually, and that these agreements were current at the time of its second response. Oyster Creek also described the training and site familiarization it provides to these offsite organizations. Oyster Creek stated that it reviewed its corrective action program back to 2008 and found no plant-specific issues involving lapsed agreements related to offsite support for B.5.b events. An Exelon fleet-wide agreement with one offsite organization was found to have lapsed, but this has been corrected with the issuance of a new contract.

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

5.0 CONCLUSION

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

M. Pacilio

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If you have any questions regarding this letter, please feel free to contact John G. Lamb, Senior Project Manager at (301) 415-3100 or John.Lamb@nrc.gov.

Sincerely,

/RA/

Meena Khanna, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-219

Enclosure:
As stated

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