



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

August 2, 2012

Mr. Michael J. Pacilio  
Senior Vice President  
Exelon Generation Company, LLC  
President and Chief Nuclear Officer  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: BYRON STATION, UNIT NOS. 1 AND 2, BRAIDWOOD STATION, UNITS 1 AND 2, CLINTON POWER STATION, UNIT NO. 1, DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3, LASALLE COUNTY STATION, UNITS 1 AND 2, LIMERICK GENERATING STATION, UNITS 1 AND 2, OYSTER CREEK NUCLEAR GENERATING STATION, PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3, QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2, AND THREE MILE ISLAND NUCLEAR STATION, UNIT 1 – CLOSEOUT OF BULLETIN 2011-01, "MITIGATING STRATEGIES" (TAC NOS. ME6402, ME6403, ME6409, ME6410, ME6416, ME6427, ME6428, ME6444, ME6445, ME6446, ME6447, ME6460, ME6465, ME6466, ME6473, ME6474, AND ME6493)

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 was to obtain a comprehensive verification that the 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).

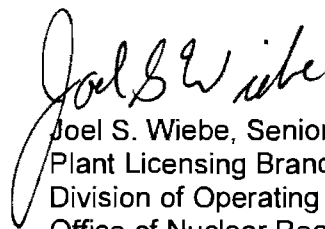
The bulletin required two sets of responses pursuant to the provisions of 10 CFR 50.54(f). Exelon Generation Company, LLC (Exelon or the licensee) provided responses to the bulletin by letters dated June 8 and July 8, 2011 (ADAMS Accession Nos. ML111600096 and ML111920162, respectively) for the Exelon fleet, which includes the following plants: Byron Station, Unit Nos. 1 and 2 (Byron), Braidwood Station, Units 1 and 2 (Braidwood), Clinton Power Station, Unit No. 1 (Clinton), Dresden Nuclear Power Station, Units 2 and 3 (Dresden), LaSalle County Station, Units 1 and 2 (LaSalle), Limerick Generating Station, Units 1 and 2 (Limerick), Oyster Creek Nuclear Generating Station (Oyster Creek), Peach Bottom Atomic Power Station, Units 2 and 3 (Peach Bottom), Quad Cities Nuclear Power Station, Units 1 and 2 (Quad Cities), and Three Mile Island Nuclear Station, Unit 1 (Three Mile Island). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC 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). As summarized in the enclosure, the NRC staff has verified that the licensee provided the information requested in the bulletin.

By letter dated June 14, 2012 (ADAMS Accession No. ML12160A387), the NRC staff concluded that the information submitted by Oyster Creek in response to Bulletin 2011-01 is acceptable. The NRC staff determined that no further information or actions under Bulletin 2011-01 are requested for Oyster Creek. The June 14, 2012, letter closed the Bulletin for Oyster Creek.

The NRC staff has reviewed the licensee's submitted information, and concluded that its response to the bulletin is acceptable. The NRC staff finds that no further information or actions under the bulletin are requested, and plans to close the associated TACs for this review.

If you have any questions regarding this matter, I can be reached at 301-415-6606.

Sincerely,



Joel S. Wiebe, Senior Project Manager  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455,  
STN 50-456, STN 50-457,  
50-461, 50-237, 50-249, 50-373,  
50-374, 50-352, 50-353, 50-219,  
50-277, 50-278, 50-254,  
50-265, and 50-289

Enclosures:

- |   |   |
|---|---|
| 1. Byron Station, Summary of NRC Bulletin 2011-01 Response Review                 | 6. Limerick Generating Station, Summary of NRC Bulletin 2011-01 Response Review       |
| 2. Braidwood Station, Summary of NRC Bulletin 2011-01 Response Review             | 7. Peach Bottom Atomic Power Station, Summary of NRC Bulletin 2011-01 Response Review |
| 3. Clinton Power Station, Summary of NRC Bulletin 2011-01 Response Review         | 8. Quad Cities Nuclear Power Station, Summary of NRC Bulletin 2011-01 Response Review |
| 4. Dresden Nuclear Power Station, Summary of NRC Bulletin 2011-01 Response Review | 9. Three Mile Island Nuclear Station, Summary of NRC Bulletin 2011-01 Response Review |
| 5. LaSalle County Station, Summary of NRC Bulletin 2011-01 Response Review        |   |

cc w/encs: Distribution via Listserv

The NRC staff has reviewed the licensee's submitted information, and concluded that its

SUMMARY OF NRC BULLETIN 2011-01

"MITIGATING STRATEGIES" RESPONSE REVIEW

BYRON STATION, UNIT NOS. 1 AND 2

DOCKET NOS. STN 50-454 AND STN 50-455

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 set of responses were due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Byron Station, Units 1 and 2 (Byron). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon provided its response to the second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). 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 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 June 27, 2007, (ADAMS Accession No. ML071720016), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's second response to determine if it had adequately addressed these questions. This was accomplished by verifying that the submittals listed equipment, training, and offsite resources which were relied upon to make conclusions in the June 27, 2007, SE or are commonly needed to implement the mitigating strategies. A summary of the staff's assessment is provided below.

#### 3.2.1 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, the licensee 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, tow vehicle, hoses, spray nozzles, and communications equipment receive maintenance or testing. In its RAI response, the licensee described how it ensures sufficient fuel for the portable pump. 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 for Byron. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Byron.

#### 3.2.2 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 the B.5.b equipment will be available when needed for Byron. 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, location, and accessibility of equipment; compressed gas bottle pressures; calibrations; and controls on storage locations. The licensee stated 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 the licensee 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; tow vehicle; portable power supply; hoses; nozzles; connectors; and firefighter turnout gear. Although communications equipment was not listed in response to Question 3, the licensee stated that Byron's communication equipment receives periodic testing as addressed in Question 2 which would also ensure the availability. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Byron.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Byron's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response

organization, fire brigade, security personnel, and other personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 NRC staff noted that Byron did not identify any local law enforcement agencies in its second response. In its RAI, the licensee described how it assures the availability of a local law enforcement agency to respond to a B.5.b event. The licensee stated that it maintains memoranda of understanding agreements or contracts with these offsite organizations, which are reviewed annually, and that these agreements were current at the time of its second response. 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 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 the licensee has provided the information requested by Question 5 for Byron.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Byron. 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 action is needed.

## SUMMARY OF NRC BULLETIN 2011-01

### "MITIGATING STRATEGIES" RESPONSE REVIEW

#### BRAIDWOOD STATION, UNITS 1 AND 2

#### DOCKET NOS. STN 50-456 AND STN 50-457

### 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 set of responses were due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Braidwood Station, Units 1 and 2 (Braidwood). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon provided its response to the second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). 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 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 June 27, 2007, (ADAMS Accession No. ML071720016), 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 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); therefore, no further actions were required on the part of current licensees.



### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's second response to determine if it had adequately addressed these questions. This was accomplished by verifying that the submittals listed equipment, training, and offsite resources which were relied upon to make conclusions in the June 27, 2007, SE or are commonly needed to implement the mitigating strategies. A summary of the staff's assessment is provided below.

#### 3.2.1 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, the licensee 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, hoses, spray nozzles, and communications equipment receive maintenance or testing. In its RAI response, the licensee described how it ensures sufficient fuel for the portable pump. 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 for Braidwood. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Braidwood.

#### 3.2.2 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 the B.5.b equipment will be available when needed for Braidwood. 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, location, condition, and accessibility of equipment. The licensee stated 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 the licensee 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; vehicle; portable power supply; hoses; spray nozzles; communications equipment; connectors; and firefighter turnout gear. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Braidwood.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Braidwood's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response organization, fire brigade, and security personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 memoranda of understanding agreements or contracts with these offsite organizations, which are reviewed annually, and that these agreements were current at the time of its second response. 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 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 the licensee has provided the information requested by Question 5 for Braidwood.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Braidwood. 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 action is needed.

SUMMARY OF NRC BULLETIN 2011-01  
"MITIGATING STRATEGIES" RESPONSE REVIEW  
CLINTON POWER STATION, UNIT NO. 1  
DOCKET NO. 50-461

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 set of responses was due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Clinton Power Station (Clinton). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon provided its response to the second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). 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 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 July 26, 2007, (ADAMS Accession No. ML072050005), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's second response to determine if it had adequately addressed these questions. This was accomplished by verifying that the submittals listed equipment, training, and offsite resources which were relied upon to make conclusions in the July 26, 2007, SE or are commonly needed to implement the mitigating strategies. A summary of the staff's assessment is provided below.

#### 3.2.1 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, the licensee 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, and communications equipment receive maintenance or testing. Clinton did not identify maintenance or testing of monitor nozzles, spray nozzles, or similar devices in its second response. In its RAI response, the licensee stated that monitor nozzles are tested annually by visual inspection and moving the movable parts through the range of movement. The NRC staff noted that refueling 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 for Clinton. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Clinton.

#### 3.2.2 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 the B.5.b equipment will be available when needed for Clinton. 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, location, and accessibility of equipment; compressed gas bottle pressures; calibrations; equipment shelf lives; and controls on storage locations. The licensee stated that at the time of its second response, there were no outstanding inventory deficiencies that would render the strategies not viable. The licensee identified two past deficiencies that were identified during walkdowns that have been corrected with measures added to prevent recurrence.

The NRC staff verified that the Clinton 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; tow vehicle; portable power supplies; hoses; monitors and nozzles; communications equipment; connectors; and firefighter turnout gear. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Clinton.

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

### **3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Clinton's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response organization, fire brigade, security personnel, and other personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 NRC staff noted that Clinton did not identify any local law enforcement agencies or hospitals in its second response. In its RAI response, the licensee described how it assures the availability of several local law enforcement agencies, Clinton ambulance, and two hospitals to respond to a B.5.b event. The licensee stated that it maintains memoranda of understanding agreements or contracts with these offsite organizations, which are reviewed annually, and that these agreements were current at the time of its second response. 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 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 the licensee has provided the information requested by Question 5 for Clinton.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Clinton. 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 action is needed.

## SUMMARY OF NRC BULLETIN 2011-01

### "MITIGATING STRATEGIES" RESPONSE REVIEW

#### DRESDEN NUCLEAR POWER STATION, UNITS 2 AND 3

#### DOCKET NOS. 50-237 AND 50-249

### 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 set of responses was due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Dresden Nuclear Power Station, Units 2 and 3 (Dresden). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon provided its response to the second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). 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 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 23, 2007, (ADAMS Accession No. ML072330082), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure 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 Dresden, 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. A summary of the staff's assessment is provided below.

### 3.2.1 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, the licensee 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, spray nozzles, satellite phones, and pagers receive maintenance or testing. In its RAI response, the licensee described the testing of the Dresden site radios. The RAI response also described how Dresden ensures there is sufficient fuel available for the portable pump to function when needed. 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 for Dresden. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Dresden.

### 3.2.2 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 the B.5.b equipment will be available when needed for Dresden. 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, location, and accessibility of equipment; compressed gas bottle pressures; and controls on storage locations. The licensee stated 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 the licensee 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; portable power supply; tow vehicle; hoses; spray nozzles; connectors; and firefighter turnout gear. Communications equipment was not listed as being inventoried, but it receives periodic testing which would also ensure its availability. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Dresden.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Dresden's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response organization, fire brigade, security personnel, and other personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 NRC staff noted that Dresden did not identify any local law enforcement agencies or hospitals in its second response. In its RAI response, the licensee described how Dresden assures the availability of two local law enforcement agencies and one hospital to respond to a B.5.b event. The licensee stated that it maintains memoranda of understanding or other types of agreements with these offsite organizations, and that these agreements were current at the time of its second response. 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 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 the licensee has provided the information requested by Question 5 for Dresden.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Dresden. 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 action is needed.

SUMMARY OF NRC BULLETIN 2011-01  
"MITIGATING STRATEGIES" RESPONSE REVIEW  
LASALLE COUNTY STATION, UNITS 1 AND 2  
DOCKET NOS. 50-373 AND 50-374

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 set of responses was due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for LaSalle County Station, Units 1 and 2 (LaSalle). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon 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 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. ML072200022), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's submittals to determine if it had adequately addressed these questions. The NRC staff also reviewed the August 9, 2007, SE to determine what equipment, training and offsite resources, at LaSalle, 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. A summary of the staff's assessment is provided below.

### 3.2.1 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, the licensee 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, spray nozzles, and communications equipment receive maintenance or testing. In its RAI response, the licensee described the testing of the LaSalle site radios. The NRC staff noted that the fuel level for the portable pump is verified during maintenance. 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 for LaSalle. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for LaSalle.

### 3.2.2 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 the B.5.b equipment will be available when needed for LaSalle. 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, location, and accessibility of equipment; compressed gas bottle pressures; calibrations; equipment shelf lives, and controls on storage locations. The licensee stated that at the time of its second response, there were no outstanding inventory deficiencies that would render the strategies not viable. The licensee did list some inventory deficiencies at LaSalle that were previously identified and corrected.

The NRC staff verified that the licensee 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: vehicle; hoses; communications equipment; spray nozzles; connectors, adaptors, and flanges; and firefighter turnout gear. The portable pump and portable power supply were not listed as being inventoried equipment; however, they do receive periodic maintenance and testing which also helps ensure that these items are available when needed. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for LaSalle.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described LaSalle's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response

organization, fire brigade, security personnel, and other personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 LaSalle maintains memoranda 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. 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 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 the licensee has provided the information requested by Question 5 for LaSalle.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for LaSalle. 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 action is needed.

## SUMMARY OF NRC BULLETIN 2011-01

### "MITIGATING STRATEGIES" RESPONSE REVIEW

#### LIMERICK GENERATING STATION, UNITS 1 AND 2

#### DOCKET NOS. 50-352 AND 50-353

### 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 set of responses was due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Limerick Generating Station, Units 1 and 2 (Limerick). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon provided its response to the second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). 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 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. ML072180003), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's submittals to determine if it had adequately addressed these questions. The NRC staff also reviewed the August 9, 2007, SE to determine what equipment, training and offsite resources 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. A summary of the staff's assessment is provided below.

#### 3.2.1 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, the licensee 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, and communications equipment receive maintenance or testing. The licensee did not identify any maintenance or testing of monitor nozzles, spray nozzles, or similar devices in its second response. In its RAI response, the licensee described the testing of its spray oscillation monitor nozzles. The NRC staff noted that the refueling of the portable pump is a 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 for Limerick. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Limerick.

#### 3.2.2 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 the B.5.b equipment will be available when needed for Limerick. 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, location, and accessibility of equipment; and controls on storage locations. The licensee stated 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 the licensee 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; tow vehicle; portable power supply; hoses; communications equipment; spray nozzles; connectors; and firefighter turnout gear. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Limerick.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Limerick's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response organization, fire brigade, security personnel, and other personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 NRC staff noted that Limerick did not identify any local law enforcement agencies in its second response. In its RAI response, Limerick described how it assures the availability of three local law enforcement agencies to respond to a B.5.b event. Limerick stated that it maintains memoranda 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. 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 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 the licensee has provided the information requested by Question 5 for Limerick.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Limerick. 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 action is needed.



## SUMMARY OF NRC BULLETIN 2011-01

### "MITIGATING STRATEGIES" RESPONSE REVIEW

#### PEACH BOTTOM ATOMIC POWER STATION, UNITS 2 AND 3

#### DOCKET NOS. 50-277 AND 50-278

### 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 set of responses was due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Peach Bottom Atomic Power Station, Units 2 and 3 (Peach Bottom). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon 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 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. ML072200647), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's submittals to determine if it had adequately addressed these questions. The NRC staff also reviewed the August 9, 2007, SE to determine what equipment, training and offsite resources 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. A summary of the staff's assessment is provided below.

### 3.2.1 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, the licensee 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, spray nozzles, and communications equipment receive maintenance or testing. The NRC staff noted that the refueling of the portable pump is a 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 for Peach Bottom. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Peach Bottom.

### 3.2.2 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 the B.5.b equipment will be available when needed for Peach Bottom. 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, location, and good working order of equipment. Additional examples of items verified include equipment accessibility, compressed gas bottle pressures, calibrations, and equipment shelf lives. The licensee stated that at the time of its second response there were no outstanding inventory deficiencies that would render the strategies not viable. Exelon identified some past inventory deficiencies at Peach Bottom that were corrected, including additional actions to prevent recurrence.

The NRC staff verified that the licensee 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; portable power supply; hoses; communications equipment; spray nozzles; fittings; and firefighter turnout gear. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Peach Bottom.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Peach Bottom's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response

organization, and fire brigade. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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. Peach Bottom stated that it maintains memoranda of understanding or contracts with these offsite organizations, which are reviewed annually, and that these agreements were current at the time of its second response. 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 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 the licensee has provided the information requested by Question 5 for Peach Bottom.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Peach Bottom. 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 action is needed.

## SUMMARY OF NRC BULLETIN 2011-01

### "MITIGATING STRATEGIES" RESPONSE REVIEW

#### QUAD CITIES NUCLEAR POWER STATION, UNITS 1 AND 2

#### DOCKET NOS. 50-254 AND 50-265

### 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 set of responses was due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Quad Cities Nuclear Power Station, Units 1 and 2 (Quad Cities). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon provided its response to the second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). As summarized below, the NRC has staff verified that the licensee 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. ML072200031), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's submittals to determine if it had adequately addressed these questions. This was accomplished by verifying that the submittals listed 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. A summary of the staff's assessment is provided below.

#### 3.2.1 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, the licensee 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, spray nozzles, and communications equipment receive maintenance or testing. In its RAI response, the licensee described how it ensures sufficient fuel for the portable pump. 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 for Quad Cities. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Quad Cities.

#### 3.2.2 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 the B.5.b equipment will be available when needed for Quad Cities. 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, location, and accessibility of equipment; compressed gas bottle pressures; and controls of storage locations. The licensee stated 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 the licensee 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: tow vehicle; hoses; communications equipment; spray nozzles; connectors; and firefighter turnout gear. The portable pump and portable power supply were not listed as being inventoried, but they receive periodic maintenance which would also ensure their availability. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Quad Cities.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Quad Cities's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response

organization, security personnel, fire brigade, and other personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 NRC noted that the licensee did not identify any local law enforcement agencies or hospitals in its second response. In its RAI response, the licensee described how Quad Cities ensures the availability of two local law enforcement agencies and two hospitals to respond to a B.5.b event. The licensee stated that it maintains memoranda of understanding or contracts with these offsite organizations, which are reviewed annually, and that these agreements were current at the time of its second response. 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 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 the licensee has provided the information requested by Question 5 for Quad Cities.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Quad Cities. 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 action is needed.

## SUMMARY OF NRC BULLETIN 2011-01

### "MITIGATING STRATEGIES" RESPONSE REVIEW

#### THREE MILE ISLAND NUCLEAR STATION, UNIT 1

DOCKET NO. 50-289

#### 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 set of responses was due 30 days after issuance of the bulletin. By letter dated June 8, 2011 (ADAMS Accession No. ML111600096), Exelon Generation Company, LLC (Exelon, the licensee) provided responses to this first set of questions (first response) for Three Mile Island Nuclear Station, Unit 1 (Three Mile Island). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML111920162), Exelon provided its response to the second set of questions (second response). By letter dated November 22, 2011 (ADAMS Accession No. ML113120057), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 20, 2011 (ADAMS Accession No. ML113550139). 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 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 July 18, 2007, (ADAMS Accession No. ML071980016), 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 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); therefore, no further actions were required on the part of current licensees.

### 3.0 TECHNICAL EVALUATION

#### 3.1 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. A summary of the staff's assessment is provided below.

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

In its first response, the licensee stated it 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 the B.5.b mitigation strategies. Therefore, the NRC staff finds that the licensee has adequately responded to Question 1.

##### 3.1.2 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's skills. Since the licensee 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 the licensee has adequately responded to Question 2.

#### 3.2 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 assuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is assured so that strategies remain feasible.
5. Describe in detail how you assure availability of offsite support.

The NRC staff reviewed the licensee's submittals to determine if it had adequately addressed these questions. This was accomplished by verifying that the submittals listed equipment, training, and offsite resources which were relied upon to make conclusions in the July 18, 2007, SE or are commonly needed to implement the mitigating strategies. A summary of the staff's assessment is provided below.

### 3.2.1 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, the licensee 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, hoses, and communications equipment receive maintenance or testing. In its RAI response, the licensee described how Three Mile Island tested its spray oscillation monitor nozzles. The NRC staff noted that the fuel for the portable pump is changed during maintenance. 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 for Three Mile Island. The licensee 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 the licensee provided the information requested by Questions 1 and 2 for Three Mile Island.

### 3.2.2 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 the B.5.b equipment will be available when needed for Three Mile Island. 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, location, and accessibility of equipment; compressed gas bottle pressures; calibrations; and controls of storage locations. The licensee stated 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 the Three Mile Island 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: hoses; communications equipment; nozzles; connectors; and firefighter turnout gear. The portable pump was not listed as being inventoried, but it receives periodic maintenance which would also ensure its availability. In its RAI response, the licensee described how Three Mile Island ensures that a vehicle is available to move the portable pump and hose trailer. The licensee also identified other plant-specific items that support the mitigating strategies that are inventoried for Three Mile Island.

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

### 3.2.3 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 mitigation strategies remain feasible.

The NRC staff verified that the licensee described Three Mile Island's 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 stated 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 stated that "initially, mitigating strategies were validated by walkdowns, 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 three years.

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, emergency response

organization, security personnel, fire brigade, and other personnel. The licensee also identified the frequency with which each type of training is provided and the methods for training evaluation.

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

#### 3.2.4 Question 5: Offsite Support

Question 5 of the 60-day request required licensees to describe in detail how offsite support availability is assured. A summary of the staff's assessment is provided below.

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 NRC noted that the licensee did not identify any local law enforcement agencies in its second response. In its RAI response, the licensee described how Three Mile Island ensures the availability of a local law enforcement agency to respond to a B.5.b event. The licensee stated that it maintains a memorandum of understanding or other type of agreement with these offsite organizations, which is reviewed annually, and that this agreement was current at the time of its second response. 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 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 the licensee has provided the information requested by Question 5 for Three Mile Island.

#### 4.0 CONCLUSION

As described above, the NRC staff has verified that the licensee has provided the information requested in Bulletin 2011-01 for Three Mile Island. 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 action is needed.

By letter dated June 14, 2012 (ADAMS Accession No. ML12160A387), the NRC staff concluded that the information submitted by Oyster Creek in response to Bulletin 2011-01 is acceptable. The NRC staff determined that no further information or actions under Bulletin 2011-01 are requested for Oyster Creek. The June 14, 2012, letter closed the Bulletin for Oyster Creek.

The NRC staff has reviewed the licensee's submitted information, and concluded that its response to the bulletin is acceptable. The NRC staff finds that no further information or actions under the bulletin are requested, and plans to close the associated TACS for this review.

If you have any questions regarding this matter, I can be reached at 301-415-6606.

Sincerely,  
/ **RA** /

Joel S. Wiebe, Senior Project Manager  
Plant Licensing Branch III-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. STN 50-454, STN 50-455,  
STN 50-456, STN 50-457,  
50-461, 50-237, 50-249, 50-373,  
50-374, 50-352, 50-353, 50-219,  
50-277, 50-278, 50-254,  
50-265, and 50-289

Enclosures:

1. Byron Station, Summary of NRC Bulletin 2011-01 Response Review
2. Braidwood Station, Summary of NRC Bulletin 2011-01 Response Review
3. Clinton Power Station, Summary of NRC Bulletin 2011-01 Response Review
4. Dresden Nuclear Power Station, Summary of NRC Bulletin 2011-01 Response Review
5. LaSalle County Station, Summary of NRC Bulletin 2011-01 Response Review
6. Limerick Generating Station, Summary of NRC Bulletin 2011-01 Response Review
7. Peach Bottom Atomic Power Station, Summary of NRC Bulletin 2011-01 Response Review
8. Quad Cities Nuclear Power Station, Summary of NRC Bulletin 2011-01 Response Review
9. Three Mile Island Nuclear Station, Summary of NRC Bulletin 2011-01 Response Review

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