



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

July 23, 2012

Mr. Mano Nazar  
Executive Vice President and  
Chief Nuclear Officer  
Florida Power and Light Company  
P.O. Box 14000  
Juno Beach, Florida 33408-0420

SUBJECT: ST. LUCIE PLANT UNIT NOS. 1 AND 2 - CLOSEOUT OF BULLETIN 2011-01,  
"MITIGATING STRATEGIES" (TAC NOS. ME6477 AND ME6478)

Dear Mr. Nazar:

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 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(h)(2).

The bulletin required two sets of responses pursuant to the provisions of 10 CFR 50.54(f). Florida Power and Light Company, the licensee for St. Lucie Plant Unit Nos. 1 and 2 (St. Lucie), provided its responses to the bulletin by letters dated June 9 and July 8, 2011 (ADAMS Accession Nos. ML11164A263 and ML11194A017, respectively). By letter dated December 5, 2011 (ADAMS Accession No. ML11334A001), 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 15, 2011 (ADAMS Accession No. ML11362A478).

The NRC staff has reviewed the information submitted by the licensee for St. Lucie and verified that the licensee provided the information requested in the Bulletin 2011-01. The NRC staff concluded that the licensee's response to the bulletin is acceptable. The staff evaluation of the licensee's responses to Bulletin 2011-01 is summarized in the enclosure to this letter. No further information or action under the bulletin is requested.

M. Nazar

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If you have any questions regarding this letter, please contact me at (301) 415-2788.

Sincerely,

A handwritten signature in black ink, appearing to read "Tracy J. Orf". The signature is fluid and cursive, with the first name "Tracy" being the most prominent part.

Tracy J. Orf, Project Manager  
Plant Licensing Branch 2-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosure:  
Summary of NRC Bulletin 2011-01  
Response Review

cc w/encl: Distribution via ListServ

SUMMARY OF NRC BULLETIN 2011-01,  
“MITIGATING STRATEGIES” RESPONSE REVIEW  
ST. LUCIE NUCLEAR PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-250 AND 50-251

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

By letter dated June 9, 2011 (ADAMS Accession No. ML11164A263), Florida Power and Light Company (FPL), the licensee for St. Lucie Nuclear Plant, Unit Nos. 1 and 2 (St. Lucie) provided its response to this first set of questions (first response). The second responses were due 60 days after issuance of the bulletin. By letter dated July 8, 2011 (ADAMS Accession No. ML11194A017), FPL provided its response to this second set of questions (second response). By letter dated December 5, 2011 (ADAMS Accession No. ML11334A001), the NRC sent a request for additional information (RAI) on the second response. The licensee responded to the RAI by letter dated December 15, 2011 (ADAMS Accession No. ML11362A478). As summarized below, the NRC staff has verified that FPL provided the information requested in the bulletin.

#### 1.0 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 16, 2007 (ADAMS Accession No. ML072260229), the NRC staff issued its Safety Evaluation (SE) to document the final disposition of information submitted by St. Lucie regarding Section B.5.b of the ICM Order. Along with the SE, the staff issued a conforming license condition to incorporate the B.5.b mitigating strategies into the licensing basis.

Enclosure

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.

## 2.0 THIRTY-DAY REQUEST

In order to confirm continued compliance with 10 CFR 50.54(hh)(2), Bulletin 2011-01 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 dated June 8, 2012, to determine if it had adequately addressed these questions.

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

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

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

The licensee confirmed in its response 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.

## 3.0 SIXTY-DAY REQUEST

The Bulletin 2011-01 required a response to the following five questions within 60 days of issuing the bulletin:

1. Describe in detail the maintenance of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it is functional when needed.
2. Describe in detail the testing of equipment procured to support the strategies and guidance required by 10 CFR 50.54(hh)(2) in order to ensure that it will function

when needed.

3. Describe in detail the controls for ensuring that the equipment is available when needed.
4. Describe in detail how configuration and guidance management is ensured so that strategies remain feasible.
5. Describe in detail how you ensure availability of offsite support.

The NRC staff reviewed the licensee's submittals to determine if it had adequately addressed these questions. This was accomplished by verifying that the submittals listed equipment, training, and offsite resources that were relied upon to make conclusions in the August 2, 2007, SE or are commonly needed to implement the mitigating strategies.

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

The NRC staff verified that the licensee for St. Lucie listed equipment that typically requires maintenance or testing that 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, and communications equipment receive maintenance or testing. In its RAI response, the licensee described the testing of monitor nozzles. The NRC staff noted that the fuel for the portable pump is replaced during maintenance. FPL also identified other items that support the mitigating strategies that receive maintenance or testing.

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

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

### 3.2 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 for St. Lucie described its process for ensuring that B.5.b equipment will be available when needed. In its second response, St. Lucie identified equipment included in its inventory, the inventory frequency, storage requirements, and items verified. Items verified include proper quantity and location of equipment. In its RAI response, the licensee for St. Lucie identified some items that are also checked for damage during inventory and replaced or repaired as necessary. FPL states that at the time of its second response there were no outstanding inventory deficiencies that would render the strategies not viable.

The NRC staff verified that the licensee for St. Lucie inventoried equipment that 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 nonpermanently installed B.5.b equipment is inventoried at least annually in accordance with station procedures. The NRC staff noted that most items listed were inventoried at least quarterly. The second response specifically states that the following items are included in the inventory: portable pump; hoses; communications equipment; spray nozzles; connectors; and firefighter turnout gear. Although the tow vehicle was not listed as being inventoried, it receives periodic maintenance and testing that would ensure its availability. The licensee for St. Lucie also identified other items that support the mitigating strategies that are inventoried.

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

### 3.3 Question 4: Configuration and Guidance Management

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

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

The NRC staff verified that St. Lucie 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. FPL also states that "initially, mitigating strategies were validated by walkdowns, engineering evaluations and/or table top reviews" and they were similarly revalidated in 2011.

The NRC staff verified that the licensee for St. Lucie described the training program implemented in support of the mitigating strategies and how its effectiveness is evaluated. In its second response, FPL identified the training provided to its operations personnel, emergency response organization key decision makers, security personnel, and fire brigade. FPL also

identified the frequency with which each type of training is provided and the methods for training evaluating.

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

#### 3.4 Question 5: Offsite Support

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

The NRC staff verified that the licensee for St. Lucie 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. FPL stated that it maintains memorandum of understanding or other types of agreements with these offsite organizations, which are reviewed annually, and that these agreements were current at the time of its second response. FPL also described the training and site familiarization it provides to these offsite organizations. FPL stated that it reviewed its corrective action program back to 2008 and found no issues involving lapsed agreements related to offsite support for B.5.b events.

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

#### 4.0 CONCLUSION

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

M. Nazar

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If you have any questions regarding this letter, please contact me at (301) 415-2788.

Sincerely,

*/RA/*

Tracy J. Orf, Project Manager  
Plant Licensing Branch 2-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-335 and 50-389

Enclosure:  
Summary of NRC Bulletin 2011-01  
Response Review

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