



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

May 14, 2013

Mr. Michael J. Annacone, Vice President
Brunswick Steam Electric Plant
Carolina Power & Light Company
Post Office box 10429
Southport, North Carolina 28461

SUBJECT: BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 – PLAN FOR THE
REGULATORY AUDIT REGARDING FLOODING WALKDOWNS TO SUPPORT
IMPLEMENTATION OF NEAR-TERM TASK FORCE RECOMMENDATION 2.3
RELATED TO THE FUKUSHIMA DAI-ICHI NUCLEAR POWER PLANT
ACCIDENT (TAC NO. MF0203)

Dear Mr. Annacone:

On March 12, 2012, the U.S. Nuclear Regulatory Commission (NRC) issued a request for information letter per Title 10 of the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued to power reactor licensees and holders of construction permits requesting addressees to provide further information to support the NRC staff's evaluation of regulatory actions to be taken in response to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. The request addressed the methods and procedures for plants to conduct seismic and flooding hazard walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions through the corrective action program, and to verify the adequacy of the monitoring and maintenance procedures.

By letter dated November 27, 2012, Carolina Power & Light Company submitted a Flooding Walkdown Report as requested per Enclosure 4, "Recommendation 2.3: Flooding," of the 50.54(f) letter for Brunswick Steam Electric Plant (BSEP), Units 1 and 2. The NRC staff plans to conduct a regulatory audit to gain a better understanding of the methods and procedures used by BSEP to conduct the flooding walkdowns and facilitate NRC staff review of the walkdown report. The audit will be conducted at BSEP from June 18 - 21, 2013, in accordance with the enclosed regulatory audit plan.

M. Annacone

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If you have any questions, please contact me by telephone at 301-415-1055 or by e-mail at Christopher.gratton@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Chris Gratton". The signature is fluid and cursive, with the first name "Chris" and last name "Gratton" clearly distinguishable.

Christopher Gratton, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-324, 50-325

Enclosure: Audit Plan

cc w/encl: Distribution via Listserv



Audit Plan

Flooding Walkdown Review for the Brunswick Steam Electric Plant, Units 1 and 2

Audit Date: June 18 - 21, 2013

**Japan Lessons Learned Project Directorate
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission**

Enclosure

Audit Plan Brunswick Steam Electric Plant, Units 1 and 2

1. Background

On March 12, 2012, the U.S. Nuclear Regulatory Commission staff (NRC) issued a request for information letter¹ per Title 10 to the *Code of Federal Regulations*, Subpart 50.54(f) (50.54(f) letter). The 50.54(f) letter was issued to power reactor licensees and holders of construction permits requesting addressees to provide further information to support the NRC staff's evaluation of regulatory actions to be taken in response to lessons learned from Japan's March 11, 2011, Great Tōhoku Earthquake and subsequent tsunami. The request addressed the methods and procedures for plants to conduct seismic and flooding hazard walkdowns to identify and address degraded, nonconforming, or unanalyzed conditions through the corrective action program, and to verify the adequacy of the monitoring and maintenance procedures.

By letter dated November 27, 2012, Carolina Power & Light Company submitted a Flooding Walkdown Report as requested per Enclosure 4, "Recommendation 2.3: Flooding," of the 50.54(f) letter for Brunswick Steam Electric Plant (BSEP), Units 1 and 2.

2. Regulatory Audit Bases

The NRC staff intends to conduct a regulatory audit to gain a better understanding of the methods and associated procedures used by Carolina Power & Light Company to conduct the flooding walkdowns at BSEP and facilitate NRC staff review of the walkdown report.

Guidance for performing the flooding walkdowns was developed by the Nuclear Energy Institute (NEI) with extensive review and input from NRC staff in numerous public meetings, webinars, and public conference calls during its development. NEI submitted NEI 12-07, "Guidelines for Performing Verification Walkdowns of Plant Flood Protection Features" (walkdown guidance)² for endorsement, and the staff subsequently endorsed the walkdown guidance by letter dated May 31, 2012.³ By letter dated November 27, 2012,⁴ Carolina Power & Light Company indicated that they would utilize the NRC endorsed guidance in the performance of the walkdowns at BSEP.

The 50.54(f) letter and the walkdown guidance are used as the basis documents upon which this regulatory audit is to be performed.

3. Regulatory Audit Scope

The scope of this regulatory audit for BSEP is to examine relevant flooding walkdown documents, interview flooding walkdown participants, observe areas of the plant walked down, and examine other relevant materials used to conduct the flooding walkdowns. This will assist the staff in identifying whether the flood walkdowns were conducted in accordance with the

¹ The 50.54(f) letter is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML12053A340.

² NEI 12-07 is available in ADAMS under Accession No. ML12144A401.

³ The NRC endorsement of NEI 12-07 is available in ADAMS under Accession No. ML12144A142.

⁴ The licensee's letter is available in ADAMS under Accession No. ML12340A074.

walkdown guidance and the 50.54(f) letter and identify any need for additional information to facilitate the NRC staff's review. The NRC staff will request additional information using the appropriate regulatory process.

The NRC staff reviewed the walkdown report for BSEP and compared it with the requested information in the 50.54(f) letter and the walkdown guidance. The factors that the NRC staff considered in choosing sites to audit were:

- Lack of clarity as to how the walkdown was consistent with the guidance based on the review of the walkdown report.
- Plant specific areas of interest identified during review of the walkdown report.
- Feedback and information gained during performance of regional inspections (e.g., NRC Temporary Instruction 2515/187).

4. Information Needs

The licensee is requested to have the following documentation available on site for the audit team. The documentation could be provided electronically or by paper copies. If provided electronically, the licensee is requested to have at least three computers available for the audit team, with a printer attached.

- Walkdown record forms (as described in Appendix B of NEI 12-07) and other supplemental forms and worksheets used to document observations from performance of the walkdowns.
- Supplemental guidelines or procedures used, in addition to NEI 12-07, for the implementation of the flooding walkdowns, including industry, fleet, or site-specific guidelines or procedures.
- Flood-specific procedures that are part of flood protection and mitigation strategy and hazardous weather response that were reviewed as part of the flood walkdowns.
- Listing of entries into the corrective action program resulting from the performance of the flood walkdowns, including condition report number, title, and brief summary of the issue or observation and its disposition.

Additional information needs identified during the audit will be communicated to the designated point of contact.

The staff also requests the licensee to make personnel who performed the walkdowns (including site staff and contractors) accessible upon request (either in person or by phone). The personnel should be able to answer questions about how the visual inspections and reasonable simulations were performed, how available physical margin values were determined, and discuss engineering analyses that were developed in support of the walkdown.

5. Team Assignments

Area of Review	Assigned Auditor
Team Lead	Stephen Campbell (NRC)
Flooding Walkdown Technical Lead	Peter Chaput (NRC)
Flooding Technical Support	Nebiyu Tiruneh (NRC)
Management Support	Christopher Cook (NRC)
Flooding Technical Support	Kevin Stewart (ORNL)
Management Support	Scott Flanders (NRC)
Technical Support	Michelle Catts (NRC)

6. Logistics

The audit will be conducted at BSEP June 18 - 21, 2013. Entrance and exit briefings will be held at the beginning and end of this audit, respectively. The licensee is requested to provide a room for the use by the audit team. A more detailed, proposed, audit schedule is attached.

7. Deliverables

An audit report/summary will be issued to the licensee within approximately 90 days from the end of the audit. Additionally, the results of the audit will be utilized to focus the scope of any requests for additional information issued in the course of this review.

Attachment:
Proposed Brunswick Audit Schedule

**Proposed Brunswick Steam Electric Plant (BSEP), Units 1 and 2
Flooding Walkdown Audit Schedule
June 18 – 21, 2013**

June 18, 2013

- | | |
|-------------------|---|
| 8:30 a.m. | ● Check-in at site – receive badges, meet licensee contact(s), setup for entrance meeting. |
| 9:30 a.m. | ● Entrance Meeting - introductions, audit activities and goals, and audit logistics. |
| 10:30 a.m. | ● NRC Team Breakout – staff review of procedures, basis documents and reports related to licensees conduct of flooding walkdown. |
| 1:00 p.m. | ● Discussion with the licensee on flooding walkdown methodology |
| 3:30 p.m. | ● Audit Team Caucus |
| 5:00 p.m. | ● NRC / Licensee Interim Meeting |
| 6:00 p.m. | ● Audit Team Daily Closeout |

June 19, 2013

- | | |
|-------------------|--|
| 8:00 a.m. | ● NRC Team Breakout – staff review of procedures, basis documents and reports related to licensees conduct of flooding walkdown. |
| 10:00 a.m. | ● Plant walkdown - (as reasonably accessible and in accordance with “As Low As Reasonably Achievable” (ALARA) exposure policies). |
| 1:30 p.m. | ● Discussion(s) with BSEP flooding walkdown team members and contractors |
| 4:00 p.m. | ● Audit Team Caucus |
| 5:00 p.m. | ● NRC / Licensee Interim Meeting |
| 6:00 p.m. | ● Audit Team Daily Closeout |

June 20, 2013

- 8:00 a.m.** ● **NRC Team Breakout** – staff review of procedures, basis documents and reports related to licensee's conduct of flooding walkdown.
- 10:00 a.m.** ● **Plant walkdown** - (as reasonably accessible and in accordance with ALARA).
- 1:30 p.m.** ● **Discussion(s) with BSEP flooding walkdown team members and contractors**
- 4:00 p.m.** ● **Audit Team Caucus**
- 5:00 p.m.** ● **NRC / Licensee Interim Meeting**
- 6:00 p.m.** ● **Audit Team Daily Closeout**

June 21, 2013

- 8:00 a.m.** ● **NRC / Licensee Exit Meeting**

M. Annacone

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If you have any questions, please contact me by telephone at 301-415-1055 or by e-mail at Christopher.gratton@nrc.gov.

Sincerely,

/RA/

Christopher Gratton, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket Nos. 50-324, 50-325

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*via e-mail

**via phone

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DATE	CCook*	JQuichocho	SCampbell**	
NAME	05/14/2013	05/14/2013	05/14/2013	

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