



Progress Energy

Benjamin C. Waldrep
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May 9, 2008

SERIAL: BSEP 08-0060

10 CFR 50.54(f)

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Subject: Brunswick Steam Electric Plant, Unit Nos. 1 and 2
Docket Nos. 50-325 and 50-324/License Nos. DPR-71 and DPR-62
Three-month Response to Generic Letter 2008-01, "Managing Gas
Accumulation in Emergency Core Cooling, Decay Heat Removal, and
Containment Spray Systems"

- References:
1. Generic Letter 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated January 11, 2008 (ADAMS Accession Number ML072910759)
 2. Letter from J. Paul Fulford to the U.S. Nuclear Regulatory Commission (Serial: PE&RAS-08-025), "Request for Extension of 3-Month Response to Generic Letter 2008-01, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems," dated April 8, 2008 (ADAMS Accession Number ML081080038)

Ladies and Gentlemen:

On January 11, 2008, the NRC issued Generic Letter (GL) 2008-01 requesting that each licensee evaluate its Emergency Core Cooling Systems (ECCS), Decay Heat Removal System, and Containment Spray System licensing basis, design, testing, and corrective actions to ensure that gas accumulation is maintained less than the amount that challenges operability of these systems, and that appropriate action is taken when conditions adverse to quality are identified. The results of these evaluations are requested to be reported within nine months of the date of the GL pursuant to 10 CFR 50.54(f). The GL goes on to state that licensees who do not believe they can complete the requested evaluations within the nine-month period are to inform the NRC, within three months of the date of the GL, of proposed alternative actions including the basis for the acceptability of the proposed alternative course of action. As documented in Reference 2, Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., received a 30 day extension to the three-month response requirement.

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Enclosure 1 provides CP&L's three-month response to GL 2008-01 for the Brunswick Steam Electric Plant (BSEP), Unit Nos. 1 and 2.

Regulatory commitments associated with this submittal are documented in Enclosure 2. Please refer any questions regarding this submittal to Mr. Randy C. Ivey, Manager - Support Services, at (910) 457-2447.

I declare, under penalty of perjury, that the foregoing is true and correct. Executed on May 9, 2008.

Sincerely,

A handwritten signature in black ink, appearing to read 'B C Waldrep', with a stylized flourish at the end.

Benjamin C. Waldrep

MAT/mat

Enclosures:

1. Three-month Response to Generic Letter 2008-01
2. List of Regulatory Commitments

cc (with enclosures):

U. S. Nuclear Regulatory Commission, Region II
ATTN: Mr. Victor M. McCree, Regional Administrator (Acting)
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U. S. Nuclear Regulatory Commission
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U. S. Nuclear Regulatory Commission **(Electronic Copy Only)**
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Three-month Response to Generic Letter 2008-01

Background

On January 11, 2008, the NRC issued Generic Letter (GL) 2008-01 requesting that each licensee evaluate its Emergency Core Cooling Systems (ECCS), Decay Heat Removal System, and Containment Spray System licensing basis, design, testing, and corrective actions to ensure that gas accumulation is maintained less than the amount that challenges operability of these systems, and that appropriate action is taken when conditions adverse to quality are identified. The results of these evaluations are requested to be reported within nine months of the date of the GL (i.e., October 11, 2008) pursuant to 10 CFR 50.54(f). The GL goes on to state that licensees who do not believe they can complete the requested evaluations within the nine month period are to inform the NRC, within three months of the date of the GL, of proposed alternative actions including the basis for the acceptability of the proposed alternative course of action.

Alternative Schedule

Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., will complete detailed walkdowns and any necessary ultrasonic examinations of inaccessible piping at locations potentially susceptible to gas accumulation for systems within the scope of GL 2008-01 for Brunswick Steam Electric Plant (BSEP), Units 1 and 2 prior to startup from each unit's next refueling outage (i.e., B118R1 for Unit 1, currently scheduled to begin on February 27, 2010, and B219R1 for Unit 2, currently scheduled to begin on February 28, 2009).

Supplemental responses to GL 2008-01 will be provided within three months following the completion of the B118R1 and B219R1 refueling outages. The supplemental responses will describe any changes to the nine-month response resulting from walkdowns and ultrasonic examination of inaccessible piping.

Basis for Alternative Schedule

CP&L expects to be able to complete the GL requested actions involving evaluation of licensing basis, design, testing, and corrective actions for both Unit 1 and 2 to a significant extent. However, the GL requested evaluations also necessitate detailed physical walkdowns of the subject piping systems to confirm pertinent design details (e.g., locations of high point vents), confirm as-built configurations (e.g., pipe elevations and slope), and ultrasonic examinations at locations potentially susceptible to gas accumulation. Portions of the subject piping systems are inaccessible during power operation due to one or more of the following reasons:

- The piping is in an area where dose rates are substantially higher during normal operation as compared to during plant shutdown conditions.
- The piping is in the drywell, the main steam tunnel, or the suppression pool.

- Insulation removal may be required to fully characterize relevant geometry and insulation removal is not practical.
- Scaffolding may be needed to access the piping to fully characterize relevant geometry and installation of scaffolding could jeopardize operability of adjacent equipment.

BSEP Unit 1 recently completed a refueling outage (i.e., B117R1) during which physical walkdowns of inaccessible piping within the scope of GL 2008-01 were performed to confirm as-built configurations (e.g., pipe elevations and slope), at locations potentially susceptible to gas accumulation. Pipe insulation was not removed during these inspections. Because adequate time was not available between issuance of GL 2008-01 on January 11, 2008, and the start of the B117R1 outage on March 15, 2008, to determine what actions are required, additional inspections or other actions may be warranted during the B118R1 outage.

BSEP Units 1 and 2 do not currently have a planned refueling outage to conduct the walkdowns and perform ultrasonic examinations of inaccessible piping within the nine month period requested by the GL (i.e., by October 11, 2008). The next Unit 1 refueling outage (i.e., B118R1) is currently planned to begin on February 27, 2010. The next Unit 2 refueling outage (i.e., B219R1) is currently planned to begin on February 28, 2009. The nine-month response to GL 2008-01 will include evaluations of non-accessible piping based on the existing BSEP Unit 1 and 2 as-built design drawings, as well as system operating experience, and any previously performed walkdown information, including the physical walkdowns of inaccessible BSEP Unit 1 piping completed during the spring 2008 B117R1 outage.

Supplemental responses to GL 2008-01 will be provided within 90 days following the completion of the B118R1 and B219R1 refueling outages. These supplemental responses will describe any changes to the nine-month response resulting from walkdowns and ultrasonic examination of inaccessible piping.

CP&L has confidence that the BSEP Units 1 and 2 ECCS, Decay Heat Removal, and Containment Spray Systems can fulfill their required design functions, based upon the following:

- The majority of inaccessible piping is on the pump discharge where potential impact of gas accumulation is generally less than for pump suction piping.
- Based on reviews completed to date, no historical examples of events related to gas accumulation have been identified for the inaccessible piping.
- Successful performance of surveillance requirements, such as periodic venting and pump testing.¹

¹ Note that on April 29, 2008, the Unit 1 High Pressure Coolant Injection system experienced a main pump seal failure during surveillance testing to establish operability. Preliminary investigations have determined that the seal failure was due to inadequate venting of the pump after seal replacement and not a result of gas accumulation in inaccessible piping. The final root cause and corrective actions associated with this event have not been completed.

CP&L will complete the GL 2008-01 actions for BSEP Units 1 and 2, with the exception of the final verification walkdowns of the pipe segments requiring a refueling outage to access. Preliminary evaluations of inaccessible piping will provide a high degree of confidence that these systems will perform their design functions. The outage walkdowns are expected to be validation activities of these design reviews.

Based upon the above, completing detailed walkdowns, ultrasonic examinations, and subsequent revisions to preliminary evaluations of inaccessible piping outside the requested nine-month period, but no later than startup from the next refuel outage, is an acceptable alternative course of action.

List of Regulatory Commitments

The following table identifies those actions committed to by Carolina Power & Light Company (CP&L), now doing business as Progress Energy Carolinas, Inc., in this document. Any other statements in this submittal are provided for information purposes and are not considered to be regulatory commitments. Please direct questions regarding these commitments to the Manager - Support Services at the Brunswick Steam Electric Plant.

| Commitment | Schedule |
|--|---|
| 1. CP&L will complete detailed walkdowns and any necessary ultrasonic examinations of inaccessible piping at locations potentially susceptible to gas accumulation for systems within the scope of Generic Letter (GL) 2008-01 for Brunswick Steam Electric Plant (BSEP) Unit 2, prior to startup from the next refueling outage (i.e., B219R1). | Prior to startup from the B219R1 refueling outage, currently scheduled to begin on February 28, 2009. |
| 2. CP&L will submit a supplemental response to GL 2008-01 within 90 days following the completion of the B219R1 refueling outage. The supplemental response will describe any changes to the nine-month response resulting from walkdowns and ultrasonic examination of inaccessible BSEP Unit 2 piping. | Within 90 days following the completion of the B219R1 refueling outage, currently scheduled to end on April 11, 2009. |
| 3. CP&L will complete any necessary ultrasonic examinations or additional inspections of inaccessible piping at locations potentially susceptible to gas accumulation for systems within the scope of GL 2008-01 for BSEP Unit 1 prior to startup from the next refueling outage (i.e., B118R1). | Prior to startup from the B118R1 refueling outage, currently scheduled to begin on February 27, 2010. |
| 4. CP&L will submit a supplemental response to GL 2008-01 within 90 days following the completion of the B118R1 refueling outage. The supplemental response will describe any changes to the nine-month response resulting from walkdowns and ultrasonic examination of inaccessible BSEP Unit 1 piping. | Within 90 days following the completion of the B118R1 refueling outage, currently scheduled to end on April 5, 2010. |