

MEMORANDUM TO: Michael Marshall, Jr. Branch Chief
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

May 12, 2006

FROM: Rani Franovich, Branch Chief /RA/
Environmental Section B
Division of License Renewal
Office of Nuclear Reactor Regulation

SUBJECT: COST-BENEFICIAL SEVERE ACCIDENT MITIGATION ALTERNATIVES
IDENTIFIED DURING THE LICENSE RENEWAL REVIEW FOR
BRUNSWICK STEAM ELECTRIC PLANT, UNITS 1 AND 2 (TAC NOS.
MC4641 AND MC4642)

The Division of License Renewal, Environmental Section B is referring the cost-beneficial severe accident mitigation alternatives (SAMAs) that were identified during the environmental portion of the license renewal reviews for Brunswick Steam Electric Plant, Units 1 and 2 (BSEP) to Plant Licensing Branch II-2 for disposition. Chapter 5 and Appendix G (of the enclosed NUREG 1437 "Supplement 25, to the Generic Environmental Impact Statement for License Renewal of Nuclear Plants), regarding Brunswick Steam Electric Plant, Units 1 and 2" (SEIS) contain the analysis that identified the cost-beneficial SAMAs. These cost-beneficial SAMAs are not related to aging management and, therefore, were not within the scope of Title 10 of the *Code of Federal Regulations Part 54* (10 CFR Part 54), the license renewal rule. Since the SAMAs were not within the scope of the license renewal rule, the staff did not require Carolina Power & Light (CP&L), now doing business as Progress Energy Carolinas, Inc., the licensee for BSEP, to implement the cost-beneficial SAMAs during license renewal. CP&L has committed to further evaluate these SAMAs that may remain potentially cost-beneficial (SAMAs 1, 6, 13, 15, 16, 17, 18, 19, 25, 29, 30, 31, 32, 34, and 36).

The staff found that fifteen SAMAs may be determined to be cost-beneficial if a more detailed evaluation were performed. The fifteen SAMAs are as follows:

1. Portable generator for direct current (DC) power,
6. Proceduralize all potential 4-kV alternating current bus cross-tie actions,
13. Install an interunit control rod drive cross-tie,
15. Diverse emergency diesel generators (EDG) HVAC logic,
16. Diverse swing diesel generators air compressor,
17. Provide alternate feeds to panels supplied only by DC bus 2A-,
18. Provide alternate feeds to essential loads directly from an alternate emergency bus,

19. Provide an alternate means of supplying the instrument air header,
25. Proceduralize battery charger high-voltage shutdown circuit inhibit,
29. Portable EDG fuel oil transfer pump,
30. Improve alternate shutdown panel,
31. Improved alternate shutdown training and equipment,
32. Add automatic fire suppression system,
34. Provide supplemental power supplies for offsite power recovery after battery depletion during station blackout, and
36. Use fire-fighting water as a backup for containment spray.

Mr. Robert Palla of PRA Licensing Branch A, DRA, performed the review and should be consulted for any additional information regarding the cost-beneficial SAMAs.

If you have any other questions concerning this matter, please contact the environmental project manager for the BSEP license renewal review, Ms. Alicia R. Williamson, at 301-415-1878 or via e-mail at arw1@nrc.gov.

Docket Nos. 50-325 and 50-324

Enclosure:
Supplement 25 to the GEIS

- 19. Provide an alternate means of supplying the instrument air header,
- 25. Proceduralize battery charger high-voltage shutdown circuit inhibit,
- 29. Portable EDG fuel oil transfer pump,
- 30. Improve alternate shutdown panel,
- 31. Improved alternate shutdown training and equipment,
- 32. Add automatic fire suppression system,
- 34. Provide supplemental power supplies for offsite power recovery after battery depletion during station blackout, and
- 36. Use fire-fighting water as a backup for containment spray.

Mr. Robert Palla of PRA Licensing Branch A, DRA, performed the review and should be consulted for any additional information regarding the cost-beneficial SAMAs.

If you have any other questions concerning this matter, please contact the environmental project manager for the BSEP license renewal review, Ms. Alicia R. Williamson, at 301-415-1878 or via e-mail at arw1@nrc.gov.

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