

Serial: NPD-NRC-2010-046 June 10, 2010

U.S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, D.C. 20555-0001

SHEARON HARRIS NUCLEAR POWER PLANT, UNITS 2 AND 3 DOCKET NOS. 52-022 AND 52-023 SUPPLEMENT 2 TO RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 071 RELATED TO PROBABILISTIC RISK ASSESSMENT AND SEVERE ACCIDENTS

References: 1. Letter from Manny Comar (NRC) to James Scarola (PEC), dated November 16, 2009, "Request for Additional Information Letter No. 071 Related to SRP Section 19.0 Probabilistic Risk Assessment and Severe Accident Evaluation for the Shearon Harris Units 2 and 3 Combined License Application"

- Letter from John Elnitsky (PEF) to U.S. Nuclear Regulatory Commission (NRC), dated December 16, 2009, "Response to Request for Additional Information Letter Nos. 071 and 072 Related to Probabilistic Risk Assessment and Severe Accidents," Serial NPD-NRC-2009-244
- Letter from John Elnitsky (PEF) to U.S. Nuclear Regulatory Commission (NRC), dated March 22, 2010, "Supplement 1 to Response to Request for Additional Information Letter No. 071 Related to Probabilistic Risk Assessment and Severe Accidents," Serial NPD-NRC-2010-019

Ladies and Gentlemen:

Progress Energy Carolinas, Inc. (PEC) hereby submits a supplemental response to the Nuclear Regulatory Commission's (NRC) request for additional information provided in Reference 1.

A revised response to two of the NRC questions (19-23 and 19-27) is addressed in the enclosure. The enclosure also identifies changes that will be made in a future revision of the Shearon Harris Nuclear Power Plant Units 2 and 3 application.

The information provided in the enclosure contains Security-Related Information, and accordingly, PEC requests that this enclosure be withheld from public disclosure under 10 CFR 2.390(d).

If you have any further questions, or need additional information, please contact Bob Kitchen at (919) 546-6992, or me at (727) 820-4481.

Progress Energy Carolinas, Inc. P.O. Box 1551 Raleigh, NC 27602

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10CFR52.79

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I declare under penalty of perjury that the foregoing is true and correct.

Executed on June 10, 2010.

Sincerely

/Jobn Elnitsky Xice President New Generation Programs & Projects

Enclosure

cc : U.S. NRC Region II, Regional Administrator (without enclosure) U.S. NRC Resident Inspector, SHNPP Unit 1 (without enclosure) Mr. Brian Hughes, U.S. NRC Project Manager Ms. Denise L. McGovern, U.S. NRC Project Manager