



Serial: NPD-NRC-2008-076
December 12, 2008

10CFR52.79

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
RESPONSE TO REQUEST FOR ADDITIONAL INFORMATION LETTER NO. 039 RELATED TO
SEISMIC CLASSIFICATION**

Reference: Letter from Manny Comar (NRC) to James Scarola (PEC), dated November 1, 2008, "Request for Additional Information Letter No. 039 Related to SRP Section 03.02.01 – Seismic Classification for the Shearon Harris Units 2 and 3 Combined License Application"

Ladies and Gentlemen:

Progress Energy Carolinas, Inc. (PEC) hereby submits our response to the Nuclear Regulatory Commission's (NRC) request for additional information provided in the referenced letter.

A response to the NRC request 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.

If you have any further questions, or need additional information, please contact Bob Kitchen at (919) 546-6992, or me at (919) 546-6107.

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

Executed on December 12, 2008.

Sincerely,

Garry D. Miller
General Manager
Nuclear Plant Development

Enclosure

cc : U.S. NRC Director, Office of New Reactors/NRLPO
U.S. NRC Office of Nuclear Reactor Regulation/NRLPO
U.S. NRC Region II, Regional Administrator
U.S. NRC Resident Inspector, SHNPP Unit 1
Mr. Manny Comar, U.S. NRC Project Manager

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

D084
NR0

**Shearon Harris Nuclear Power Plant Units 2 and 3
Response to NRC Request for Additional Information Letter No. 039 Related to
SRP Section 03.02.01 for the Combined License Application, dated November 1, 2008**

<u>NRC RAI #</u>	<u>Progress Energy RAI #</u>	<u>Progress Energy Response</u>
03.02.01-3	H-0267	Response enclosed – see following pages

NRC Letter No.: HAR-RAI-LTR-039

NRC Letter Date: November 1, 2008

NRC Review of Final Safety Analysis Report

NRC RAI NUMBER: 03.02.01-3

Text of NRC RAI:

The applicant has identified that the reference DCD is incorporated by reference (IBR), with both standard and non-standard departures and/or supplements regarding SSCs classified in Section 3.2. In regard to the non-standard supplement identified as HAR SUP 3.2-2, this supplement identifies the seismic classification of the makeup water pump house and intake structure as NS. Considering that these defense in depth SSCs are risk-significant and may be needed as a first line of defense for shutdown cooling and post 72 hours after an accident, clarify the basis for this NS classification.

PGN RAI ID #: H-0267

PGN Response to NRC RAI:

The makeup pump house and intake structure are part of the Harris Lake makeup water system (HLMWS). This structure is located on a cove of the Cape Fear River. The HLMWS provides water from the Cape Fear River to the Harris Reservoir to maintain the level of the reservoir for the normal operation of HAR 2 and 3 [normal pool elevation of 73.2 m (240 feet) NGVD29, see FSAR Subsection 2.4.11.2]. This system does not perform a safety-related function nor does failure of the system or any of its components affect the ability of safety-related systems to perform their intended function (See FSAR Subsection 9.2.12).

Loss of the makeup water from the Cape Fear River was evaluated and is discussed in FSAR Subsection 2.4.11.2. Without makeup water from the Cape Fear River, the storage volume of the Main Reservoir of Harris Lake [between normal pool elevation 73.2 m (240 feet) NGVD29 and minimum pool elevation of 67.1 m (220 feet) NGVD29] could sustain HNP (Unit 1), HAR 2 and HAR 3 for 17.5 months (See FSAR Subsection 2.4.11.2).

Since there is a 17.5 month supply of water and therefore, no post 72 hour actions are required, the HLMWS is not risk significant. Based on this the HLMWS should be classified as Class E. Class E systems are normally not designed for seismic loading and are classified as NS. Therefore, the seismic classification of the makeup pump house and intake is NS.

Associated HAR COL Application Revisions:

The following changes will be made to the HAR FSAR in a future amendment:

1. Revise FSAR Section 3.2 to add Table 3.2-201. This table supplements DCD Table 3.2-3.

HAR SUP 3.2-5

Table 3.2-201
AP1000 Classification of Mechanical and Fluid Systems, Components and Equipment

Tag Number	Description	AP1000 Class	Seismic Category	Principal Construction Code	Comments
	Harris Lake Makeup Water System (HLMWS)				Location: Cove of the Cape Fear River
	System components are Class E				

2. Add the following sentence to the end of FSAR Subsection 3.2.2:

HAR SUP 3.2-5

"See Table 3.2-201 for the classification of the Harris Lake makeup water system (HLMWS)."

Attachments / Enclosures:

None.