

August 7, 2007

Mr. Robert J. Duncan II
Vice President
Carolina Power & Light Company
P.O. Box 165, Mail Zone 1
New Hill, NC 27562

SUBJECT: REQUESTS FOR ADDITIONAL INFORMATION FOR THE REVIEW OF THE
SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1, LICENSE RENEWAL
APPLICATION

Dear Mr. Duncan:

By letter dated November 14, 2006, Carolina Power & Light Company submitted an application pursuant to Title 10 of the *Code of Federal Regulation* Part 54, to renew the operating license for Shearon Harris Nuclear Power Plant, Unit 1, for review by the U.S. Nuclear Regulatory Commission (NRC or the staff). The staff is reviewing the information contained in the license renewal application and has identified, in the enclosure, areas where additional information is needed to complete the review.

These requests for additional information were discussed with Roger Stewart, and a mutually agreeable date for the response is within 30 days from the date of this letter. If you have any questions, please contact me at 301-415-3137 or via e-mail MLH5@nrc.gov.

Sincerely,

/RA/

Maurice Heath, Project Manager
License Renewal Branch A
Division of License Renewal
Office of Nuclear Reactor Regulation

Docket No. 50-400

Enclosure:
Requests for Additional Information

cc w/encl: See next page

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SHEARON HARRIS NUCLEAR POWER PLANT, UNIT 1
LICENSE RENEWAL APPLICATION
REQUESTS FOR ADDITIONAL INFORMATION (RAIs)

RAI 2.3.3.31-3

License renewal application (LRA) drawing 5-G-0055-LRA, "Fire Protection System Unit 1," shows the Auxiliary Boiler Fuel Oil Storage Tanks foam fire suppression system as out of scope (i.e., not highlighted). Verify whether the foam fire suppression system and its components are in scope of license renewal in accordance with 10 CFR 54.4(a) and subject to an aging management review (AMR) in accordance with 10 CFR 54.21(a)(1). If they are excluded from the scope of license renewal and not subject to an AMR, please provide justification for the exclusion.

RAI 2.3.3.31-4

The Shearon Harris Nuclear Power Plant (HNP) final safety analysis report (FSAR) states that the traveling screens are provided at the intake structure for the removal of larger impurities which may be present in the water. It is not clear from review of Section 2.3.3.31 and Table 2.3.3.27 of the LRA that the traveling water screens are included within the scope of license renewal and subject to an AMR. Traveling screens are typically considered to be passive, long-lived components. Traveling screens are located in a fresh or raw water/air environment and are typically constructed of carbon steel. Carbon steel in a fresh or raw water environment or water/air environment is subject to loss of material, pitting, crevice formation, and microbiologically influenced corrosion, and fouling. Explain the apparent exclusion of the trash racks and traveling screens that are located upstream of the fire pump suctions from the scope of license renewal in accordance with 10 CFR 54.4(a) and subject to an AMR in accordance with 10 CFR 54.21(a)(1).

RAI 2.3.3.31-5

FSAR listed various types of water fire suppression systems provided in the plant fire areas for fire suppression activities. The fire suppression system in various areas are:

- Automatic Pre-Action Sprinkler System (Fire Areas: 10-A-CSRA, 12-A-BAL, 12-A-HV&IR, 5-W-BAL, and Turbine Generator- Unit No.1)
- Automatic Multi-Cycle Sprinkler System (Fire Areas: 1-A-BAL, 1-A-EPA, 1-A-EPB, 5-F-CHF, 5-F-FPP, 1-D-DGA, 1-D-DGB, 1-D-DTA, 1-D-DTB, 1-O-PA, and 1-O-PB)
- Water Spray System (Fire Area: Turbine Generator- Unit No. 1 and Charcoal Filter Assemblies)
- Manual Fluoro-Protein Mechanical Foam System (Fuel Oil Storage Tanks)
- Wet-Pipe System
- Deluge Systems

The staff requests that the applicant verify whether the above fire suppression systems installed in various areas of the plant are in the scope of license renewal in accordance with 10 CFR 54.4(a) and subject to an AMR in accordance with 10 CFR 54.21(a)(1). If they are excluded from the scope of license renewal and not subject to an AMR, the staff requests that the applicant provide justification for the exclusion.

RAI 2.3.3.31-6

LRA Table 2.3.3-27 excludes several types of fire protection components that appear in the safety evaluation report and/or FSAR, and which are also highlighted in the LRA drawings. These components are listed below:

- yard fire hydrants
- interior hose standpipe
- hose connections and racks
- manual hose stations
- pipe fittings
- pipe supports
- couplings
- threaded connections
- restricting orifices
- interface flanges
- chamber housings
- heat-actuated devices
- gauge snubbers
- tank heaters
- Halon 1301 storage cylinders
- thermowells
- water motor alarms
- expansion joint
- filter housing
- gear box housing
- heat exchangers (bonnet)
- heat exchangers (shell)
- heat exchangers (tube)
- heater housing
- diesel driven fire pump engine's muffler
- diesel driven fire pump engine's intake and exhaust silencers
- orifices
- sight glass
- strainer housing
- turbocharger housing
- flexible hose
- latch door pull box
- pneumatic actuators
- actuator housing
- dikes (contain oil spill)
- storage tanks for fire water system
- buried underground fuel oil tanks

- expansion tank
- jacket cooling water keepwarm pump and heater
- lubricating oil collection system components for reactor coolant pump
- lubricating oil cooler
- auxiliary lubricating oil makeup tank
- rocker lubricating oil pump
- flame retardant coating for cables
- fire barrier penetration seals
- fire barrier walls, ceilings, floor, and slabs
- fire doors
- fire rated enclosures
- fire retardant coating for structural steel supporting wall and ceiling

For each, determine whether the component should be included in Table 2.3.3.27, and if not, justify the exclusion.

Letter to R. Duncan, from M. Heath, dated August 7, 2007

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Shearon Harris Nuclear Power Plant,
Unit 1

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-2-

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