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U.S. Nuclear Regulatory Commission  
ATTENTION: Document Control Desk  
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT, UNIT NO. 1  
DOCKET NO. 50-400/LICENSE NO. NPF-63

Revision of the Relief Request from ASME OM Code Inservice Testing  
Requirements for the Third Ten-Year Interval Plan

Ladies and Gentlemen:

On December 18, 2006, the Harris Nuclear Plant (HNP) of Carolina Power and Light Company (CP&L) doing business as Progress Energy Carolinas, Inc., submitted the HNP Inservice Testing (IST) Program for the third ten-year interval, which will be in effect from May 2, 2007 through and including May 1, 2017. The IST Program Plan included one relief request (AF-PR-1 on page "Attachment 5.2-1").

The enclosure provides Revision 1 of relief request AF-PR-1, which supersedes the previously submitted relief request. This revision provides a clarification requested by the NRC to facilitate their review. Specifically, it removes the turbine-driven auxiliary feedwater (AFW) pump, AF1X-SAB, from the component listing of the relief request to clarify that the relief only applies to the two motor-driven AFW pumps.

This document contains no new or revised Regulatory Commitments.

Please refer any question regarding this submittal to me at (919) 362-3137.

Sincerely,

A handwritten signature in black ink, appearing to read "D. H. Corlett".

D. H. Corlett  
Supervisor – Licensing/Regulatory Programs  
Harris Nuclear Plant

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Enclosure (1 page)

C:

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## Attachment 5.2 - Pump Relief Requests

## AF-PR-1

Component	Description	Flow Diagram	Dwg Coor	System	Pump Group
AF1A-SA	MD Auxiliary Feedwater Pump "1A"	2165-S-544	M-5	3065	A
AF1B-SB	MD Auxiliary Feedwater Pump "1B"	2165-S-544	M-8	3065	A

**Code Test Requirements**

The full scale range of each analog instrument shall not be greater than three times the reference value [ISTB-3510(b)(1)].

**Basis for Relief:**

The permanently installed flow instrument which is utilized to conduct the quarterly pump tests of the two motor driven auxiliary feedwater pumps (AF1A-SA and AF1B-SB) has a calibrated full scale range which exceeds a factor of three times their reference values. The full scale range of the instrument, FI-2172, is 0-200 gpm while the reference value of each pump is 51 gpm. FI-2172 is installed in a common pump recirculation line which is shared by both the two motor driven AFW pumps and the single turbine driven AFW pump. The indicator is sized to accommodate the combined restricted flows of all three pumps simultaneously. Although the full scale range of FI-2172 does not comply with Code requirements, its accuracy of  $\pm 1\%$  of full scale exceeds that which is required.

Even though FI-2172 does not meet the Code requirement for range, it is capable of providing an indicated accuracy at the reference value that is superior to the minimum indicated accuracy that would be required by the Code. Based on the least accurate instrument that would theoretically be allowed by the Code, the minimum required indicated accuracy is  $\pm 6\%$ . (This fact is documented by NUREG-1482, paragraph 5.5.1.) The indicated accuracy of FI-2172, as derived based upon the current reference values, is as follows:

Reference value = 51 gpm

Full scale range = 200 gpm

Instrument tolerance =  $\pm 2$  gpm ( $\pm 1\% \times 200$  gpm)

Therefore the indicated accuracy is:

$$\pm 2 \text{ gpm} / 51 \text{ gpm} \times 100\% = \pm 3.9\%$$

As demonstrated, the indicated accuracy of FI-2172 is better than that which is theoretically allowed by the Code.

This relief request was numbered AF-PR1 during the previous ten year interval and was approved by the NRC by letter dated February 1, 1999 (TAC No. MA0815). Relief is requested for the third ten-year interval pursuant to 10CFR50.55a(3)(i) since the proposed alternative would provide an acceptable level of quality and safety to that of the applicable Code requirement.

**Alternate Test**

The existing permanently installed pump instrument is acceptable because the indicated accuracy is less than or equal to  $\pm 6\%$  as calculated at the reference value. No alternate testing or instrumentation will be utilized.

**Approval Status**

This relief request was approved for the second 10 year inspection interval and is being resubmitted to NRC for approval to use in the third 10 year inspection interval. It is not approved by the NRC at this time.