



**Carolina Power & Light Company**

Harris Nuclear Plant  
PO Box 165  
New Hill NC 27562

FEB 14 2001

SERIAL: HNP-01-014

United States Nuclear Regulatory Commission  
ATTENTION: Document Control Desk  
Washington, DC 20555

SHEARON HARRIS NUCLEAR POWER PLANT  
DOCKET NO. 50-400/LICENSE NO. NPF-63  
TECHNICAL SPECIFICATION BASES CHANGE - AUXILIARY FEEDWATER SYSTEM

Dear Sir or Madam:

Carolina Power & Light Company is providing revised Technical Specification (TS) Bases pages for TS 3/4.7.1.2, Auxiliary Feedwater System, for the Harris Nuclear Plant. This change is a correction to a Surveillance Requirement (SR) number referenced in the TS Bases. The SRs for TS 3/4.7.1.2 were renumbered in License Amendment 93; however, the TS Bases were not changed at that time. Therefore, this Bases change is intended to ensure consistency between the current TS and the Bases.

The revised TS Bases page is provided in Attachment 1.

If you have any questions on this subject, please contact Mr. E. McCartney at (919) 362-2661.

Sincerely,

R. J. Field  
Manager, Regulatory Affairs

ONW/onw

Attachment

c: Mr. J. B. Brady, NRC Sr. Resident Inspector  
Mr. Mel Fry, Director, N.C. DENR  
Mr. Rich Laufer, NRC Project Manager  
Mr. L. A. Reyes, NRC Regional Administrator

ATTACHMENT 1 TO SERIAL: HNP-01-014

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TECHNICAL SPECIFICATION BASES PAGE

B 3/4 7-2

## PLANT SYSTEMS

### BASES

#### AUXILIARY FEEDWATER SYSTEM

operation. The AFW System provides decay heat removal immediately following a station blackout event, and is required to mitigate the Loss of Normal Feedwater and Feedwater Line break accidents analyzed in FSAR Chapter 15. The pump performance requirements are based upon a 4% degradation of the vendor certified performance curves. Pump operation at this level has been demonstrated by calculation to deliver sufficient AFW flow to satisfy the accident analysis acceptance criteria.

With regard to the periodic AFW valve position verification of Surveillance Requirement 4.7.1.2.1 Sub-paragraph b.1, this requirement does not include in its scope the AFW flow control valves inline from the AFW motor-driven pump discharge header to each steam generator when they are equipped with an auto-open feature. The auto-open logic feature is designed to automatically open these valves upon receipt of an Engineered Safety Features System AFW start signal. As a consequence, valves with an auto-open feature do not have a "correct position" which must be verified. The valves may be in any position, in any MODE of operation thereby allowing full use of the AFW System for activities such as to adjust steam generator water levels prior to and during plant start-up, as an alternate feedwater system during hot standby, for cooldown operations, and to establish and maintain wet layup conditions in the steam generators.

#### 3/4.7.1.3 CONDENSATE STORAGE TANK

The OPERABILITY of the condensate storage tank with the minimum water volume ensures that sufficient water is available to maintain the RCS at HOT STANDBY conditions for 12 hours with steam discharge to the atmosphere concurrent with total loss-of-offsite power. The contained water volume limit includes an allowance for water not usable because of tank discharge line location or other physical characteristics, and the value has also been adjusted in a manner similar to that for the RWST and BAT, as discussed on page B 3/4 1-3.

#### 3/4.7.1.4 SPECIFIC ACTIVITY

The limitations on Secondary Coolant System specific activity ensure that the resultant offsite radiation dose will be limited to a small fraction of 10 CFR Part 100 dose guideline values in the event of a steam line rupture. This dose also includes the effects of a coincident 1 gpm reactor-to-secondary tube leak in the steam generator of the affected steam line. These values are consistent with the assumptions used in the safety analyses.

#### 3/4.7.1.5 MAIN STEAM LINE ISOLATION VALVES

The OPERABILITY of the main steam line isolation valves ensures that no more than one steam generator will blow down in the event of a steam line rupture. This restriction is required to: (1) minimize the positive reactivity effects of the Reactor Coolant System cooldown associated with the blowdown, and (2) limit the pressure rise within containment in the event the steam line rupture occurs within containment. The OPERABILITY of the main steam isolation valves within the closure times of the Surveillance Requirements are consistent with the assumptions used in the safety analyses.

#### 3/4.7.2 STEAM GENERATOR PRESSURE/TEMPERATURE LIMITATION

The limitation on steam generator pressure and temperature ensures that the pressure-induced stresses in the steam generators do not exceed the maximum allowable fracture toughness stress limits. The limitations of 70°F and 200 psig are based on a steam generator  $RT_{NDT}$  of 60°F and are sufficient to prevent brittle fracture.

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### BASES

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