Proposed Amendment to Catawba Unit 1
Technical Specification 3.4.6.2 Concerning
Reactor Coolant System Unidentified Leakage

REACTOR COOLANT SYSTEM

OPERATIONAL LEAKAGE

LIMITING CONDITION FOR OPERATION

3.4.6.2 Reactor Coolant System leakage shall be limited to:

a. No PRESSURE BOUNDARY LEAKAGE,

b. 1 gpm UNIDENTIFIED LEAKAGE,

c. 1 gpm total reactor-to-secondary leakage through all steam generators and 500 gallons per day through any one steam generator,

d. 10 gpm IDENTIFIED LEAKAGE from the Reactor Coolant System,

e. 40 gpm CONTROLLED LEAKAGE at a Reactor Coolant System pressure of 2235 ± 20 psig, and

f. 1 gpm leakage at a Reactor Coolant System pressure of 2235 ± 20 psig from any Reactor Coolant System Pressure Isolation Valve specified in Table 3.4-1.

APPLICABILITY: MODES 1, 2, 3, and 4.

ACTION:

a. With any PRESSURE BOUNDARY LEAKAGE, be in at least HOT STANDBY within 6 hours and in COLD SHUTDOWN within the following 30 hours.

b. With any Reactor Coolant System leakage greater than any one of the above limits, excluding PRESSURE BOUNDARY LEAKAGE and leakage from Reactor Coolant System Pressure Isolation Valves, reduce the leakage rate to within limits within 4 hours or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.*

c. With any Reactor Coolant System Pressure Isolation Valve leakage greater than the above limit, isolate the high pressure portion of the affected system from the low pressure portion within 4 hours by use of at least two closed manual or deactivated automatic valves, or be in at least HOT STANDBY within the next 6 hours and in COLD SHUTDOWN within the following 30 hours.

*Until 0015 hours, October 15, 1985, operation in Mode 3 and 4 is permitted with the Reactor Coolant System unidentified leakage rate >1gpm but <5gpm. If the unidentified leakage rate is not reduced to <1gpm by the above time the unit will be placed in COLD SHUTDOWN within the following 6 hours.

JUSTIFICATION AND ANALYSIS OF NO SIGNIFICANT HAZARDS CONSIDERATION

The Proposed Amendment is a result of 1.2 GPM unidentified leakage from the Reactor Coolant System of Catawba Unit one. This leakage exceeds the allowed Technical Specification 3.4.6.2 unidentified leakage of 1 GPM. Leakage calculations first identified this problem on the 10th of October, 1985 at approximately 1415 hours and the action statement of the Technical Specification was entered, an Unusual Event declared, and the unit shutdown (to Mode 3 - Hot Standby) as required. Efforts to identify the source of the leakage have not yet been successful and additional time is needed to accomplish this task. It is felt that because of the low rate of Leakage it will be difficult to identify the source if plant pressure and temperature are further reduced as required under the Technical Specification Action Statement (be in Cold Shutdown within the following 30 hours). Providing an additional 72 hours at Hot Standby to search Containment Areas will increase the likelyhood that leakage paths are identified for correction and not masked to resurface on the next Start-up.

10 CFR 50.92 states that a proposed amendment involves no significant hazards considerations if operation in accordance with the proposed amendment would not:

1. Involve a significant increase in the probability or consequences of an accident previously evaluated; or

2. Create the possibility of a new or different kind of accident from any accident previously evaluated; or

3. Involve a significant reduction in a margin of safety.

The proposed amendment does not increase the probability or consequences of an accident previously evaluated, it does not create the possibility of a new or different kind of accident and it does not involve a significant reduction in a margin of safety.

Initial examination of Containment Sump Levels, Upper and Lower Containment Floor Surfaces, and Reactor Coolant System Boundary Surfaces show no unusual accumulation of water. Since the leakage is not extensive, and only barely exceeds Technical Specification Limits, it poses no challenge to the ability of the Reactor Coolant Make-up system to maintain system water inventory. Activity levels have remained within acceptable limits and do not indicate any gross leakage of Reactor Coolant. All other Technical Specification requirements are being met for operation in Mode 3 and the plant is in a stable condition. The safety margins contained in the LOCA Analysis described in the FSAR are unaffected by this level of leakage and no new accident scenarios are created.

Based upon the above analysis, the proposed amendment is determined to involve no significant hazard considerations.