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Vice President

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U. S. Nuclear Regulatory Commission
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Subject: Duke Energy Corporation
Catawba Nuclear Station, Units 1 and 2
Docket Nos. 50-413 and 50-414
Updated Plans for the Chemical Treatment of the
Nuclear Service Water (RN) System

- 1) Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment, July 18, 1989
- 2) Letter from USNRC to Duke Power, NRC Inspection Report Nos. 50-413/94-17 and 50-414/94-17, September 9, 1994
- 3) Letter from W.R. McCollum, Jr. to USNRC, Plans for Chemical Treatment of the Nuclear Service Water (RN) System, November 20, 1995
- 4) Letter from W.R. McCollum, Jr. to USNRC, Updated Plans for Chemical Treatment of the Nuclear Service Water System, July 3, 1996

Gentlemen:

The purpose of this letter is to clarify our current state in complying with the requirements of Generic Letter 89-13, Service Water System Problems Affecting Safety-Related Equipment, July 18, 1989 (Reference Generic Issue 51, Enclosure 1) which outlines requirements for preventing serious service water fouling events. Based on our review of correspondence for the past several years, Catawba Nuclear Station (CNS) recognized the need to clarify the current state of the treatment regime to prevent nuclear service water fouling.

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Service water fouling issues include the following: 1) Macrobiological Fouling 2) Mud, Silt and Corrosion Product Deposition with Microbiological Fouling. Our treatment of each category is outlined in the following paragraphs:

Macrobiological Fouling:

The major method of treatment of macrobiological fouling (primarily Asiatic clams) continues to be flushing of critical sections of piping on a periodic basis. This method, which has been used for a decade, has proven to be effective.

Mud, Silt, and Corrosion Product Deposition with Microbiological Fouling:

Recently, CNS determined that sufficient fouling was present in the RN system to justify a cleaning. During the recent Unit 1 outage, major portions of the site RN system were mechanically cleaned. Subsequent to the cleaning, a chemical addition program was started in November 2000. A dispersant was added to keep silt suspended and an oxidizing biocide was added to control biofilm growth. This treatment should minimize fouling in the system. Early concerns were that oxidizing biocides could accelerate general corrosion rates beyond acceptable levels. Further testing has shown this concern to be unfounded. Earlier correspondence alluded to the conclusion that Microbiologically Induced Corrosion (MIC) was not present in our raw water piping. In the 1996-97 time frame it became apparent that conclusions from earlier studies were erroneous; in fact, corrosion has been discovered in Catawba's raw water systems that was attributed to MIC. The above treatment, by controlling silt deposition and biofilm buildup, should minimize the conditions that are conducive to MIC.

The dispersant is normally added at the RN Pumphouse on a continuous basis. This addition may have to be suspended at certain times due to environmental restrictions and system configurations. The oxidizing biocide is also added at the RN Pumphouse. The biocide will normally be added one to two hours per day, approximately four days a week. When the RN system is aligned to the Nuclear Service Water Pond, these additions will have to cease due to environmental restrictions.

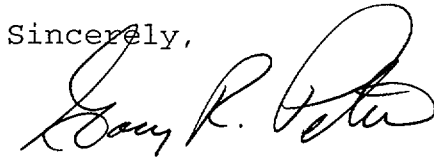
U. S. Nuclear Regulatory Commission
January 9, 2001
Page 3

The intent of this letter is to document the current state of the site programs in preventing fouling events in the Nuclear Service Water System. This document contains three commitments.

1. The site will continue to flush critical sections of RN piping to mitigate microbiological fouling.
2. The site will normally add a biocide on an intermittent basis to the RN system in order to prevent biofilm buildup.
3. The site will normally add a silt dispersant to the RN system on a continuous basis to keep the silt suspended in the raw water as it passes through the piping.

For additional information contact Tony Jackson at 803-831-3742.

Sincerely,



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