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DUKE POWER

November 20, 1995

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555

Subject: Catawba Nuclear Station, Units 1 and 2
Docket Nos. 50-413 and 50-414
Plans for Chemical Treatment of the Nuclear Service Water (RN) System

- References:
- 1) Letter from Thomas A. Peebles to D.L. Rehn, Notice of Violation (NRC Inspection Report Nos. 50-413/94-17 and 50-414/94-17), September 9, 1994
 - 2) Letter from D.L. Rehn to USNRC, Reply to Notice of Violation, Inspection Report Nos. 50-413/94-17 and 50-414/94-17, November 8, 1994

Gentlemen:

In Reference 1, the NRC expressed a concern regarding the lack of service water system chemical treatment at Catawba. The letter requested Catawba to submit a description of actions to improve service water system water quality or for initiating chemical treatment.

In Reference 2, Catawba provided the NRC with a description of actions taken and planned in the area of service water system chemical treatment. The letter indicated that Catawba had expected CT-1 to serve as the chemical control product, but it was determined to be unacceptable. It also indicated that Catawba hoped to qualify another chemical, either sodium hypochlorite or a mixture of sodium hypochlorite and bromine, by November of 1995 and be in a position to begin plant modifications required for implementation.

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At present, the above chemicals have not been qualified; however, the following paragraphs provide a description of Catawba's actions to date in addressing service water system water quality problems.

In January 1995, Puckorius and Associates was selected as the consultant to evaluate the requirements of the service water system testing program. In March 1995, a plant modification was installed which added a tap on a line in the low pressure service water (RL) system in the Water Chemistry Building. The purpose of this tap was to allow easy access and constant flow for the qualification study. The RL system was chosen since it is not a safety-related system and both the RL and RN systems utilize the same quality of water. The consultant assisted in choosing the correct chemicals to utilize in the study and in setting up the test skid correctly in order to achieve valid results. The test skid was designed and manufactured based on the recommendations of the consultant. The test skid allows for the simulation of the actual hydraulic conditions of the RN system. The test skid was delivered to Catawba in September 1995 and startup and initial testing commenced.

The skid is being used to test the corrosion rate of the water from the RL tap via the use of test coupons. The test coupon characteristics are consistent with the metallurgical makeup of RN system components. The skid also has siltation bagels, differential pressure loops, and a chemical feed system. The chemical feed system consists of metering pumps to feed chemicals at a definite and uniform rate so that testing can be scaled to actual in-plant conditions. Dispersants are being tested at present in order to identify one that minimizes silt deposition in the RN system. Biocide testing is scheduled following the completion of the dispersant testing. Biocides will be tested in order to identify a chemical(s) which can be utilized to control microbiological and macrobiological fouling, and which is capable of enhancing RN system reliability. Chemical selection criteria will include the minimization of RN system general corrosion rates.

Dispersants appropriate for use in the RN system have been specified and application will be submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) by December 31, 1995 for approval. SCDHEC approval is required prior to using any chemicals in the RN system. It is anticipated that SCDHEC approval will require a maximum of six months. While awaiting SCDHEC approval, Catawba plans to test additional chemicals. Trial use of dispersants will begin following SCDHEC approval. Separate approval for the use of biocides and detoxifying agents will be required and will be pursued based on the test results. Catawba will provide a status update concerning this issue in mid-1996.

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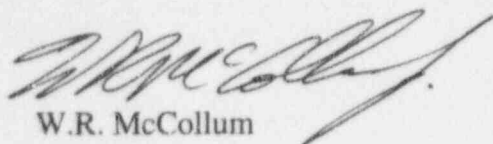
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Catawba recognizes the importance of maintaining a healthy nuclear service water system and anticipates that chemical treatment will have a positive impact upon the system when implemented. From the time that the NRC expressed a concern regarding the lack of chemical treatment, significant effort has been expended to identify which chemicals are best suited to Catawba's RN system and to determine their impact to the environment. Completion of these efforts is a prerequisite to obtaining state regulatory approval to use these chemicals.

Should you have any questions concerning the issue of chemical treatment of the RN system at Catawba, please call Russell Propst at (803) 831-3358.

Very truly yours,



W.R. McCollum

LJR/s

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