Duke Power
A Duke Energy Company

Gary R. Peterson
Vice President

Duke Power
Catawba Nuclear Station
4800 Concord Road
York, SC 29745
(803) 831-4251 OFFICE
(803) 831-3426 FAX

August 6, 1999

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

Subject: Catawba Nuclear Stations, Unit 2
Docket Nos. 50-414
Cathodic Protection System
Special Report

On June 28, 1999, the Cathodic Protection System was declared inoperable after the system did not pass the acceptance criteria of the bimonthly surveillance. Catawba Nuclear Station Selected Licensee Commitments 16.8-5 remedial action b. requires the system to be restored to operable status within the required time period of ten (10) days or a Special Report to be submitted outlining the plan for restoration.

While performing the bimonthly surveillance on June 28, 1999, anode well test stations (TS) 37, 39, and 40 associated with the Unit 2 diesel generator piping did not meet the acceptance criteria of the first- test procedure. The first test verifies that the metallic structure/piping potential (voltage) is at least 850mV below the TS reference electrode potential (voltage) with the Cathodic Protection Rectifier energized. TS 37 and 39 did pass the second test that verifies that there is a voltage shift greater than 300mV no sooner than 24 hours after the rectifier is de-energized. However, TS 40 did not pass this test or the third test. The third test verifies that the polarization decay is at least 100mV after the rectifier is de-energized for 24 hours. It should be noted that there are no immediate concerns for corrosion protection.

Several corrective actions were taken to address the situation with TS 40:

1/0
IE22

1. Corrosion was found on the connections of an anode well in close proximity to TS 39 and TS 40. Work request #98085802 was initiated and the connections on this anode well were either cleaned or replaced;
2. Based on recommendations from Engineering, the tap settings on rectifier no. 3 were adjusted to increase the output voltage and current to compensate for normal anode degradation; and
3. The test procedure was enhanced to improve the consistency of the test results.

Subsequent testing of TS 40 was performed on July 20, 1999. The preliminary results of these tests indicate that the corrective actions were successful. The Cathodic Protection System is currently in service. A follow-up bimonthly surveillance based on the revised procedure has been scheduled. It is expected that the results of that surveillance will support declaring the Cathodic Protection System operable. The system is providing an acceptable level of protection to the Unit 2 diesel generator piping. Details of this occurrence are documented in Problem Investigation Process (PIP) 2-C99-2764.

Any questions concerning this report may be directed to Kay Nicholson at 803-831-3237.

Sincerely,

Gary R. Peterson

xc: L. A. Reyes, Regional Administrator
P. S. Tam, ONRR
D. J. Roberts, SRI