

DUKE POWER COMPANY

POWER BUILDING

422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

*Central file*

*50-269*

*270*

*287*

May 3, 1977

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

TELEPHONE: AREA 704  
373-4083

Mr. Norman C. Moseley, Director  
U. S. Nuclear Regulatory Commission  
Suite 818  
230 Peachtree Street, Northwest  
Atlanta, Georgia 30303

Re: Oconee Nuclear Station  
Docket Nos. 50-269, -270, -287

Dear Mr. Moseley:

Pursuant to the requirements of Oconee Nuclear Station Technical Specification 6.6.2.2.c & d, this report is submitted describing a condition in which measured levels of radioactivity exceeded the control levels by greater than four times but less than ten times.

On April 18, 1977, analytical results of water samples collected from February 1 to February 28, 1977, were reviewed. Given below is a summary of the pertinent results of the radioactivity concentrations of these samples.

<u>Sample Location</u>	<u>Date Collected</u>	<u>Type of Sample</u>	<u>Activity (<math>\mu\text{Ci/ml}</math>)</u>
000.3 Bridge North of Site (Control)	3/1/77	Surface Water	2.5E-9 (gross beta)
000.7 Hwy. 183 Bridge	2/1/77-2/28/77	Surface Water	1.7E-8 (gross beta)

Radioactivity concentrations in downstream water samples are dependent upon the corrosion and fission product concentrations in liquid effluents released from the station. For the month of February, 1977, 0.193 curies of corrosion and fission products were released from the station in liquid effluents. The average tailrace concentration was 3.65E-8  $\mu\text{Ci/ml}$ .

At location 000.7, Hwy. 183 Bridge, near the effluent discharge point, the gross beta activity, standardized against the beta energy of Cesium-137 should (and does) compare favorably to the average activity released from the station. Samples collected at sample location 000.7 are collected from a time-averaged composite sampler mounted on the Highway 183 Bridge. Since the Keowee Hydro Station operates infrequently, the activity in this sample may routinely approach the 10CFR20 Appendix B, Table II, Column 2 value which is the maximum instantaneous concentration allowed by technical specifications.

Very truly yours,

*William O Parker Jr*  
William O. Parker, Jr.

*82-11-11*

*Misc*

*[Handwritten signature]*

LJB:ge