

81-012-64L  
81-007-04L  
81-009-64L

DUKE POWER COMPANY  
POWER BUILDING  
422 SOUTH CHURCH STREET, CHARLOTTE, N. C. 28242

WILLIAM O. PARKER, JR.  
VICE PRESIDENT  
STEAM PRODUCTION

February 25, 1981

TELEPHONE AREA 704  
373-4083

Mr. James P. O'Reilly, Director  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street, Suite 3100  
Atlanta, Georgia 30303

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



Dear Mr. O'Reilly:

In accordance with requirements of Oconee Nuclear Station Technical Specification 6.6.2.2.c, this report is submitted describing a condition in which measured radioactivity levels exceeded the control level by greater than 50 times.

On February 19, 1981, analytical results of aquatic vegetation samples collected on February 10, 1981 were reviewed. A summary of pertinent analytical results is given below:

Sample Location	Activity pCi/kg (wet)			
	Co-58	Co-60	Cs-134	Cs-137
000.5 Lake Keowee (Control)	<80.02 E1	<5.18 E1	<5.06 E1	7.94 E1 ±4.6 E1
000.4 Near Liquid Effluent Release	6.31 E3 ±8.3 E1	4.19 E3 ±8.7 E1	2.96 E3 ±7.4 E1	7.09 E3 ±9.5 E1

The expected activities calculated, using the bioaccumulation factors given on page 131 of the Final Environmental Statement for Oconee Nuclear Station, are given below for aquatic vegetation near the liquid effluent release point.

Radionuclide	Measured Activity (pCi/kg)	Expected Activity (pCi/kg)
Co-58	6.31 E3	1.57 E3
Co-60	4.18 E3	2.58 E2
Cs-134	2.96 E3	1.66 E4
Cs-137	7.09 E3	3.35 E4

A comparison of the expected and measured aquatic vegetation activities at Location 000.4 shows Co-58 to be close to expected activity while Cs-134 and Cs-137 are well below the expected activities. The measured Co-58 activity implies that the bioaccumulation for cobalt may have been larger in this case than generally assumed in the Final Environmental Statement. Wide ranges of bioaccumulation factors have been observed depending on the type of vegetation and existing environmental conditions.

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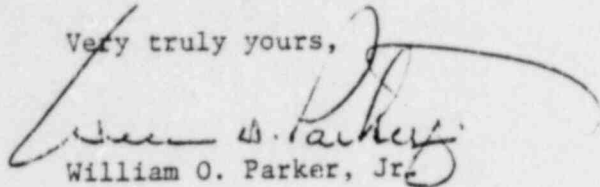
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Since these activities are consistent with the expected activities, they do not present any significant impact on public health and safety.

Very truly yours,

A handwritten signature in dark ink, appearing to read "W. O. Parker, Jr.", with a large, sweeping flourish extending from the end of the signature.

William O. Parker, Jr.

JLJ:pw