



Carolina Power & Light Company

Brunswick Steam Electric Plant  
P. O. Box 10429  
Southport, NC 28461-0429

May 31, 1983

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USNRC REGION II  
ATLANTA, GEORGIA

FILE: B09-13510C  
SERIAL: BSEP/83-1581

Mr. James P. O'Reilly, Administrator  
U. S. Nuclear Regulatory Commission  
Region II, Suite 3100  
101 Marietta Street N.W.  
Atlanta, GA 30303

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-325 AND 50-324  
LICENSE NOS. DPR-71 AND DPR-62  
30-DAY NONROUTINE RADIOLOGICAL ENVIRONMENTAL EVENT REPORT

Dear Mr. O'Reilly:

Results of gamma analysis of two bottom sediment samples collected April 5 and 6, 1983, as part of Brunswick Steam Electric Plant's Environmental Radiological Monitoring program detected Co-60 at a concentration of  $1.17 \pm 0.05$  pCi/g at sample station No. 33 and  $1.25 \pm 0.04$  pCi/g at sample station No. 34. The analysis of these samples was completed on May 2, 1983. The MDA values for these stations are 0.06 pCi/g at sample station No. 33 and 0.03 pCi/g at sample station No. 34. The Co-60 activity found in these samples constitutes a 30-day reportable event in accordance with Technical Specifications, Appendix B, Section 5.4.2b, pertinent to environmental sampling.

These bottom sediment samples were collected as part of an expanded surveillance program on sediment in the discharge canal. The current sample results indicate decreasing Co-60 activity at sample station No. 33 and increasing activity at sample station No. 34 when compared with data from March 1983 sample results. It is not known at this time if these are actual changes in activity or if they are due to sampling variables.

The Co-60 activity found in these samples is reportable due to a factor of 10 increase above the MDA. There is no radiation hazard or exposure to the public due to this activity. There was no Co-60 found in surface water samples from the intake and discharge canals or from the ocean during April 1983.

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Mr. James P. O'Reilly

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The sampling frequency for bottom sediment samples has been increased from semiannually to monthly for the period of November 1982 through June 1983 in order to more closely monitor the Co-60 activity levels in the discharge canal and to determine if trends in these activity levels can be predicted. These samples represent the sixth of the monthly samples that will be taken in this effort.

Very truly yours,

*Original Signed*  
*C. R. Dietz*  
C. R. Dietz, General Manager  
Brunswick Steam Electric Plant

AHC/jo/LETJ03

Enclosure

cc: Mr. R. C. DeYoung  
NRC Document Control Desk

bcc: Mr. D. L. Bensinger  
Mr. A. G. Cheatham III  
Mr. R. M. Coats  
Mr. A. B. Cutter  
Mr. J. S. Dietrich/File: B-X-545  
Dr. T. S. Elleman  
Mr. B. J. Furr  
Mr. W. P. Guarino  
Mr. L. P. Hewlett  
Mr. P. W. Howe  
Dr. J. D. E. Jeffries  
INPO

Mr. I. A. Johnson  
Mr. L. E. Jones  
Mr. L. H. Martin  
Mr. C. H. Moseley  
Mr. D. O. Myers  
Mr. C. E. Robertson  
Mr. J. J. Sheppard/File: BC/A-4  
Mr. R. B. Starkey, Jr.  
Mr. L. V. Wagoner  
Mr. J. L. Willis  
Ms. M. S. Wingo