CP&L
Carolina Power & Light Company
Brunswick Steam Electric Plant
P. O. Box 10429
Southport, NC 28461

April 1, 1980

FILE: B3513 SERIAL: BSEP/80-591

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

BRUNSWICK STEAM ELECTRIC PLANT, UNIT NOS. 1 & 2
LICENSE NOS. DPR-71 AND DPR-62
DOCKET NOS. 50-325 AND 50-324
SPECIAL INFORMATION REPORT

Dear Mr. O'Reilly:

At 0949 on February 8, 1980, both Brunswick Steam Electric Plant triaxial time-history accelograph systems alarmed and recorded. The seismic monitoring systems at the Shearon Harris plant, south of Raleigh, NC, and at the University of South Carolina indicated that no seismic activity had occurred. No seismic-like motion was felt by plant personnel.

The accelographic recordings were examined to evaluate the disturbance, and plant personnel were unable to observe any seismic-related indications. The seismic monitoring equipment was inspected and no problems were found. The activities in progress at the time of the event were reviewed and no connection between them and the accelographs could be determined. A thorough search was performed to find something common to both accelograph systems, other than ground motion, and nothing was found.

The recording of seismic events is initiated by instantaneous accelerations greater than 0.01g. These accelerations may result from shocks and vibrations arising from equipment operation and maintenance activities, as well as from seismic events. Seismic-induced ground accelerations of less than 0.02g are masked by normal nonseismic background noise levels that average 0.01g to 0.015g after the recorder is initiated.

The peak shock recorder plates, which form a separate passive monitoring system that records the peak accelerations at different frequencies for a seismic event, were also checked and no indication of motion was found. Plant personnel are capable of detecting ground accelerations of $\geq$ 0.03g on this equipment.

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While the seismic monitoring system responses could be similar in a 0.01g to 0.02g seismic event, we believe that such an event did not occur. A seismic event of this magnitude is well below the OBE design value of .08g and would not cause any damage. Such an event would have been felt by many people; however, no motion was detected by anyone.

Based on verification from two independent sources, as well as personnel observations, that no seismic event occurred, and due to the sensitivity of the seismic monitors to initiation by nonseismic events, we feel that the recorders were initiated by a combination of shock and operating vibrations resulting from nonseismic activities.

The printout strips have been sent to Kinemetrics, Inc., Pasadena, CA, for analysis. They have been asked to provide any information they can from this analysis that would help in verifying the cause of this event.

The instruments have been checked and are fully operational.

Very truly yours,

A. C. Tollison, Jr., General Manager
Brunswick Steam Electric Plant

RMP/sgb

cc: R. A. Hartfield
V. Stello, Jr.