ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
UNITED STATES ATOMIC ENERGY COMMISSION
WASHINGTON, D.C. 20545

October 16, 1969

Honorable Glenn T. Seaborg
Chairman
U. S. Atomic Energy Commission
Washington, D. C. 20545

Subject: REPORT ON BRUNSWICK STEAM ELECTRIC PLANT UNITS 1 AND 2

Dear Dr. Seaborg:

At its 114th meeting, October 9-11, 1969, the Advisory Committee on Reactor Safeguards completed review of amendments to the application by Carolina Power and Light Company to construct the Brunswick Steam Electric Plant Units 1 and 2. This project was the subject of a report to you dated May 15, 1969. The review was re-opened at the 113th ACRS meeting, on September 4-6, 1969, in consideration of additional submittals by the applicant describing changes in design bases and criteria in response to the Committee's previous report, and indicating a change in the construction contractor. Some of these changes were considered at a Subcommittee meeting, held in Washington, D. C., on October 8, 1969. The Committee had the benefit of discussions with representatives of the Carolina Power and Light Company, General Electric Company, United Engineers and Constructors, Brown and Root, Inc., the AEC Regulatory Staff, and their consultants. The additional documents submitted and considered are listed below.

The maximum instant water level, including wave height and wave runup, that might result at the reactor building from hurricanes has been determined as 25.6 feet above mean sea level (MSL), in accordance with ESSA report HUR-7-97. The applicant stated that the plant will be designed so that flooding to an elevation of 26.2 feet MSL with a duration of one hour will have no deleterious effects on equipment essential to safety, even if the sump pumps are not operating. The Committee believes that this basis for design against flooding is satisfactory.

The applicant stated that some portion of each circumferential butt weld on the main steam lines downstream of the second isolation valve would be inspected by radiography or by equivalent volumetric methods. The Committee believes that this procedure is adequately responsive to its recommendation that a program of spot radiography be employed as a quality control measure.

The applicant described his design approach for the Core Standby Cooling System suction lines and stated that the run of pipe from the torus liner to the first remotely operated valve will have a length of about nine feet. The Committee believes that the proposed design approach for this pipe is suitable, but believes that the applicant should study further measures to improve leak detection capability and should implement those measures found practical. The Regulatory Staff should review the design of this portion of the system.

If due attention is given to the various items mentioned in the Committee's report of May 15, 1969, and to the items mentioned above, the Committee reaffirms its previous conclusion that the proposed plants can be constructed with reasonable assurance that they can be operated without undue risk to the health and safety of the public.

Sincerely yours,

/s/

Stephen H. Hanauer
Chairman

References - Brunswick Steam Electric Plant, Units 1 and 2

1. Letter from Carolina Power and Light Company, dated June 30, 1969; Amendment No. 8 to License Application; Supplement No. 6 to PSAR

2. Letter from Carolina Power and Light Company, dated August 18, 1969; Amendment No. 10 to License Application, dated August 13, 1969