UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON REACTOR SAFEGUARDS
WASHINGTON, D. C. 20555

February 16, 1979

Honorable Joseph M. Hendrie
Chairman
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: REPORT ON THE FLUOR POWER SERVICES INCORPORATED BALANCE-OF-PLANT STANDARD SAFETY ANALYSIS REPORT (BOPSSAR) AS APPLIED TO THE BABCOCK-205 STANDARD NUCLEAR STEAM SUPPLY SYSTEM

Dear Dr. Hendrie:

During its 226th meeting, February 8-10, 1979, the Advisory Committee on Reactor Safeguards reviewed the application of Fluor Power Services Incorporated (formerly Fluor Pioneer Inc.) for Preliminary Design Approval of its BOPSSAR, a standard nuclear balance-of-plant (BOP) designed to interface with a single-unit Babcock and Wilcox Company Babcock-205 standard pressurized-water reactor nuclear steam supply system (NSSS). The Fluor BOPSSAR design has previously been reviewed by the Committee in relation to the Westinghouse RESAR-41 standard NSSS. The Committee's report on this review is dated July 20, 1977. The Committee's report on the Babcock and Wilcox Company Babcock-205 standard NSSS is dated August 18, 1977. The BOPSSAR design as applied to a Babcock-205 NSSS was considered at a Subcommittee meeting in Washington, D.C. on January 26, 1979. During its review, the Committee had the benefit of discussions with representatives of Fluor Power Services Inc. and the NRC Staff. The Committee also had the benefit of the documents listed.

The Committee believes that the BOP design proposed in BOPSSAR is acceptable for a Preliminary Design Approval. The Committee believes, however, that the several items mentioned in its report on BOPSSAR in relation to RESAR-41 are applicable also to the use of BOPSSAR with Babcock-205. These matters should be addressed by the NRC Staff and the Utility-Applicant, as appropriate, during the review of an application for a construction permit for a nuclear plant utilizing the BOPSSAR and Babcock-205 standard designs. These items include: separation of critical safety-related equipment; safety-related interface requirements; coordination of interdependent instrumentation and controls; provisions for protection against industrial sabotage; and provisions which anticipate the maintenance, inspection, and operational needs of the plant throughout its service life.

With regard to the generic items cited in the Committee's report, "Status of Generic Items Relating to Light-Water Reactors: Report No. 6," dated November 15, 1977, those items considered relevant to the use of BOPSSAR with a Babcock-205 NSSS are: II-2, 5B, 6, 9; IIA-4; IIC-1, 2, 3A, 3B, 4, 5, 6; IID-1, 2; IIE-1. These matters should be dealt with by the NRC Staff and the Applicant, as appropriate, when solutions are found.

The Advisory Committee on Reactor Safeguards believes that, if due consideration is given to the foregoing and to the recommendations in the Committee's report of August 18, 1977 on Babcock-205, Preliminary Design Approval can be granted for the use of BOPSSAR in conjunction with Babcock-205.

Sincerely yours,

Max W. Carbon
Chairman

References:

1. Fluor Power Services Inc. Balance of Plant Standard Safety Analysis Report, BOPSSAR, Volumes 1 through 11 and Amendments 1 through 20.
2. Report to the Advisory Committee on Reactor Safeguards in the Matter of Fluor Power Services Incorporated Reference Safety Analysis Report (BOPSSAR) as Related to BSAR-205, December 1978 by the Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission.
3. Letter dated January 4, 1978 from W. W. Larkin, Fluor Pioneer Inc. to B. C. Rusche NRC containing information regarding tests to confirm the coefficient of friction between concrete and steel surfaces.