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Honorable Nunzio J. Palladino  
Chairman  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Dear Dr. Palladino:

SUBJECT: ACRS REPORT ON FULL POWER OPERATION OF RIVER BEND STATION,  
UNIT 1

During its 305th meeting, September 12-14, 1985, the Advisory Committee on Reactor Safeguards reviewed the application of Gulf States Utilities Company (Applicant), acting on behalf of itself and as an agent for the Cajun Electrical Power Cooperative for a license to operate the River Bend Station, Unit 1 at full power. A Subcommittee meeting was held on September 11, 1985 in Washington, D. C. to consider this request. During this review, we had the benefit of discussions with representatives of the Applicant and the NRC Staff. We also had the benefit of the documents referenced, including written comments from a member of the public. The Committee commented on the application to operate the River Bend Station in an interim report dated July 17, 1984 and on the application to construct this Station in its report dated January 14, 1975.

The Committee, in its July 17, 1984 report, stated that it had not yet completed its review and listed a number of matters yet to be considered. Except as indicated below, we conclude that these matters have been dealt with satisfactorily.

The Committee noted in its July 17, 1984 report that the dedicated diesel generator that drives the high pressure core spray (HPCS) pump was dependent on cooling water supplied by pumps powered by the other two emergency diesel generators during loss of off-site power conditions. The Applicant has modified the design to provide a power source for these cooling water pumps which is supplied by the dedicated diesel generator. We find this to be satisfactory.

The Committee also commented on the Applicant's plans for the performance of a limited probabilistic risk analysis and on the advisability of reviewing the seismic design margin for the equipment important to the accomplishment of safe shutdown. The Applicant has performed a limited PRA and has reviewed the seismic capability of some of the plant equipment and found considerable margin. Both of these issues are being addressed generically by the NRC Staff and the ACRS, and their resolution need not delay the issuance of the full power license for this unit.

The Applicant and the NRC Staff have been working on the development of emergency operating procedures to cover possible containment venting in the event of certain postulated accidents beyond the design basis. We believe that further work is needed to develop an appropriate procedure for venting for River Bend but believe that the review and acceptance of

such a procedure need not be completed prior to full power operation.

We recommend that resolution of this matter be accomplished within a year after the issuance of a full power operating license. We wish to have an opportunity to review the proposed resolution.

The matter of hydrogen control is still in a developmental stage. The Applicant is working with the Hydrogen Control Owners Group (HCOG) and is depending appreciably on a \-scale experimental program by HCOG to develop data on burning conditions and resulting environments. We urge that sufficient diversity in postulated accident scenarios be used in judging matters such as potential hydrogen production rates. In view of the complex heat transfer and fluid mechanics phenomena involved and the associated uncertainties, the details of the experimental program will need careful analysis and proper attention will have to be given to extrapolating the \-scale results to full scale.

We agree that it is acceptable for River Bend to proceed to full power while resolution of the hydrogen control matter is pursued. We wish to review the proposed resolution when the necessary information and evaluation are available.

The Applicant does not plan to provide, for the hydrogen ignition system, a backup power source that would function during station black-out. We favor providing such a backup power source. We intend to address this issue in our future generic discussions on hydrogen control.

We believe that, subject to the above comments and satisfactory completion of construction, staffing, and preoperational testing, there is reasonable assurance that the River Bend Station, Unit 1 can be operated at power levels up to 2894 MWt without undue risk to the health and safety of the public.

Sincerely,

David A. Ward  
Chairman

References:

1. Gulf States Utilities Company, "Final Safety Analysis Report, River Bend Station," Volumes 1-20 and Amendments 1-21
2. U. S. Nuclear Regulatory Commission, "Safety Evaluation Report Related to the Operation of River Bend Station," NUREG-0989, dated May 1984
3. U. S. Nuclear Regulatory Commission, "Safety Evaluation Report Related to the Operation of River Bend Station," NUREG-0989, Supplement No. 1 dated October 1984; Supplement No. 2 dated August 1985; Supplement No. 3 dated August 1985
4. Memo from Thomas M. Novak, NRC Division of Licensing, to Raymond F. Fraley, ACRS, dated August 23, 1985, Subject: River Bend Station - Draft SSER 4
5. Letter from Jerry N. Brown, member of the public, to Morton W. Libarkin, NRC regarding ACRS Subcommittee review of Gulf States Utilities Company's application for an operating license for River

Bend, dated September 5, 1985

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