



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

October 20, 1981

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

SUBJECT: INTERIM REPORT ON GRAND GULF NUCLEAR STATION UNIT 1

Dear Dr. Palladino:

During its 258th meeting, October 15-17, 1981, the Advisory Committee on Reactor Safeguards reviewed the application of the Mississippi Power and Light Company (MP&L), Middle South Energy, Inc., and the South Mississippi Electric Power Association for a license to operate the Grand Gulf Nuclear Station Units 1 and 2. The units are to be operated by the Mississippi Power and Light Company. A Subcommittee meeting was held in Jackson, Mississippi on September 17-18, 1981 to consider this project. A tour of the facility was made by members of the Subcommittee on September 17, 1981. During its review, the Committee had the benefit of discussions with representatives of the Applicant, the NRC Staff, and members of the public. The Committee also had the benefit of the documents listed. The Committee commented on the construction permit application for this station in its report dated May 15, 1974.

The Grand Gulf Station is located in Claiborne County, Mississippi on the east side of the Mississippi River about 25 miles south of Vicksburg, the nearest city having a population in excess of 25,000 persons.

Each Grand Gulf unit is equipped with a General Electric BWR-6 nuclear steam supply system with a rated power level of 3833 MWt and a Mark III pressure suppression containment system with a design pressure of 15 psig. Construction of Unit 1 is over 90% complete while Unit 2 is about 20% complete and construction of it has been temporarily suspended.

Because of the extended schedule for Unit 2, the Committee does not believe it appropriate to report on operation of Unit 2 at this time.

The Committee review included the management organization, capability, and operator training of MP&L. This is the first nuclear power plant to be operated by this utility. While the plant staff has a reasonable amount of

nuclear background, the ACRS agrees with the NRC Staff on the need for additional personnel with BWR experience, at least during the first year or two of operation. MP&L also needs to fill certain senior technical personnel positions in its management organization. The Committee recommends that the MP&L Nuclear Safety Review Board include two or more experienced voting members from outside MP&L having appropriate backgrounds.

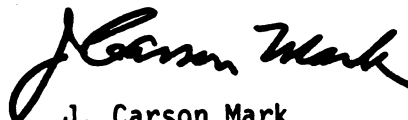
During this meeting, the NRC Staff identified a large number of license conditions and confirmatory matters, and several outstanding issues which remain to be resolved. Except for the two issues identified below, the ACRS is satisfied with progress on the other topics and believes that they should be resolved in a manner satisfactory to the NRC Staff.

We have not completed our review of the following outstanding issues identified in the NRC Staff Safety Evaluation Report:

- . dynamic loads on structures above the Mark III suppression pool due to froth impact
- . hydrogen control

The ACRS will complete its review of the full power operating license when the Staff and the Applicant have made sufficient additional progress in resolving these items. In the interim, the ACRS believes that if due consideration is given to the recommendations above, and subject to satisfactory completion of construction, staffing, and preoperational testing, it would be acceptable for Grand Gulf Nuclear Station Unit 1 to be operated at power levels up to 5% of full power.

Sincerely,



J. Carson Mark
Chairman

References:

1. Mississippi Power and Light Company, "Final Safety Analysis Report, Grand Gulf Nuclear Station Units 1 and 2," Volumes 1-21 and Amendments 25-50
2. U. S. Geological Survey Professional Paper by T. G. Hildenbrand, M. F. Kane, and J. D. Hendricks, "Magnetic Basement in the Upper Mississippi Embayment Region - A Preliminary Report," received August, 1981
3. Report by S. W. Hatch, Sandia National Laboratories and P. Cybulskis and R. O. Wooton, Battelle Columbus Laboratories for Office of Nuclear Regulatory Research, NRC, "The Reactor Safety Study Methodology Applications Program Results for the Grand Gulf #1 BWR Power Plant," NUREG/CR-1659, Vol. 4, SAND80-1897/4, Draft Received 2/6/81

4. Letter from M. D. Houston, Project Manager, Division of Licensing, NRR, to H. Alderman, ACRS, Subject: Staff Responses to Questions asked by ACRS at the Grand Gulf Subcommittee Meeting, September 17-18, 1981, dated October 14, 1981
5. Letters from L. F. Dale, Mississippi Power and Light Company to USNRC, dated August 27, 1981, August 27, 1981, August 26, 1981, August 24, 1981, August 21, 1981, August 21, 1981, August 21, 1981, August 19, 1981, August 18, 1981, August 18, 1981
6. Letter from C. Stewart, Jacksonians United for Livable Energy Policies (JULEP) to R. F. Fraley, ACRS, dated October 8, 1981
7. Letter from K. Lawrence, JULEP, to ACRS Grand Gulf Subcommittee dated September 18, 1981
8. Statement by K. Lawrence, JULEP, to ACRS Grand Gulf Subcommittee dated September 17, 1981
9. Letter from C. Dana, et al., member of public, to ACRS Subcommittee on Reactor Safety dated September 16, 1981
10. Anonymous letter to H. Alderman, ACRS Staff, regarding quality assurance concern, postmarked September 18, 1981