



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 28 TO FACILITY OPERATING LICENSE NO. NPF-47

GULF STATES UTILITIES COMPANY

RIVER BEND STATION, UNIT 1

DOCKET NO. 50-458

1.0 INTRODUCTION

By letter dated May 25, 1988 as supplemented July 6, 1988, Gulf States Utilities Company (GSU) (the licensee) requested an amendment to Facility Operating License No. NPF-47 for the River Bend Station, Unit 1. The proposed amendment would modify License Condition 2.C(14), Attachment 5, Item 3, to delay the implementation of neutron flux monitoring system modifications from prior to startup from the second refueling outage until a refueling outage following the issuance of the NRC staff's safety evaluation of the Boiling Water Reactor Owners Group (BWROG) topical report, "Position on NRC Regulatory Guide 1.97, Revision 3, Requirements for Post-Accident Neutron Monitoring System," NEDO-31558, March 1988. License Condition 2.C(14), Attachment 5, Item 3, requires that prior to startup from the second refueling outage, the licensee shall implement modifications (installation or upgrade) for neutron flux monitoring consistent with the guidance of Regulatory Guide 1.97, Revision 2 unless prior approval of an alternate design is granted by the NRC staff.

On June 30, 1986, the NRC staff issued a safety evaluation (SE) regarding the River Bend Station conformance to Regulatory Guide 1.97. This safety evaluation concluded that the River Bend Station design was acceptable except for neutron flux instrumentation. The staff found that the existing neutron flux instrumentation was acceptable for interim operation; however, the SE concluded that prior to startup from the first refueling outage, the licensee must install or upgrade the neutron flux instrumentation to conform to Regulatory Guide 1.97, Revision 2, and 10 CFR 50.49.

By letter dated August 5, 1987, as supplemented August 24, 1987, the licensee requested that the implementation date for the installation or upgrade of the neutron flux instrumentation be changed from prior to the startup following the first refueling outage to prior to startup following the second refueling outage. The licensee stated that they followed the industry development of neutron flux instrumentation that meets Regulatory Guide 1.97 and that the scheduling, procurement and installation of a licensed system meeting the Regulatory Guide would not be possible during the first refueling outage. The NRC approved the requested schedule change in Amendment No. 14 to the license dated October 26, 1987.

The proposed change requested by the licensee's May 25, 1988 submittal would state that GSU shall implement modifications (installation or upgrade) for neutron flux monitoring consistent with the guidance of Regulatory Guide 1.97, Revision 2 or the NRC staff's Safety Evaluation Report (SER) of the BWR0G topical report NEDO-31558. Modifications, if required, shall be completed before the restart from the next refueling outage starting after 10 months from the date of receipt of the NRC staff SER on NEDO-31558.

2.0 EVALUATION

The licensee stated that the BWR0G topical report, NEDO-31558, was submitted for NRC review on April 1, 1988. This topical report, which is currently under review by the NRC staff, concludes that the existing BWR neutron monitoring system design is generally adequate for every postulated event and that a fully qualified Class 1E system for post-accident monitoring is not appropriate or justified. The licensee's submittal indicates that based on a plant specific evaluation, the River Bend Station's design meets all criteria provided in the Topical Report and, on this basis, it is their position that the present neutron monitoring system meets the functional safety intent of Regulatory Guide 1.97. GSU requested that the technical arguments presented in the topical report be evaluated by the NRC prior to the implementation of modifications.

GSU has followed industry development of equipment designed to meet Regulatory Guide 1.97 criteria. GSU indicated that several options have been reviewed and that concerns have been identified regarding the ability of the systems to comply with all criteria of Regulatory Guide 1.97 or installation and operational considerations. GSU indicated that they are continuing to pursue resolution to these concerns to establish an acceptable alternate system installation but delivery constraints will require a purchase order to be placed in June to September 1988, depending on the option, to ensure delivery and final design for installation during the second refueling outage. GSU further stated that to procure, design and install a neutron monitoring system prior to receiving the NRC safety evaluation on the BWR0G topical report could result in undue hardship and unnecessary costs if implementation proceeds in accordance with the current license condition.

Because there could be undue hardships and unnecessary costs should GSU proceed with the procurement and installation of the neutron monitoring system prior to the issuance of the staff's safety evaluation of the Topical Report, and there is existing neutron flux instrumentation that the staff found acceptable for interim operation, and because there are unrelated systems in place to provide operators with sufficient data to assess reactor conditions (e.g., control rod position monitors, reactor vessel level and pressure monitors) in the unlikely event of an accident condition, the staff finds that the licensee's May 25, 1988 proposed change to License Condition 2.C(14), Attachment 5, Item 3, is acceptable. For clarity, we have added a completion date, which should provide ample time to complete the related review and implementation work.

By letter dated July 6, 1988, GSU committed to submit quarterly reports to the NRC, beginning September 30, 1988, addressing the progress of neutron flux monitoring procurement and evaluation activities at River Bend Station to satisfy the revised license condition.

3.0 ENVIRONMENTAL CONSIDERATION

The amendment involves a change in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20. The staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposures. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration and there has been no public comment on such finding. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR Section 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

4.0 CONCLUSION

The staff has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (2) such activities will be conducted in compliance with the Commission's regulations, and the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public. The staff therefore concludes that the proposed changes are acceptable, and they are hereby incorporated into the River Bend Unit 1 license.

Date: August 29, 1988

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