



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 39 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 June 28, 1989, 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 until before restart from the next refueling outage starting after 18 months from the date of receipt 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.

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 monitoring 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.

On April 1, 1988, the BWROG topical report, NEDO-31558, was submitted for NRC review. 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. By letter dated May 25, 1988, the licensee requested that the previously cited license condition be modified to delay implementation of neutron flux monitoring system until a refueling outage following the

issuance of the NRC staff's safety evaluation regarding topical report, NEDO-31558. The licensee stated that based on a plant specific evaluation, the River Bend Station's design meets all the 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 the modifications. The NRC approved the schedule change in Amendment No. 28 to the license dated August 29, 1988. The license condition, as approved, states 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 SE of the BWROG 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 SE on NEDO-31558, but not later than January 1, 1991 unless otherwise notified in writing by the NRC staff.

The staff's evaluation of the licensee's June 28, 1989 request for further modification of the above cited license condition is contained below.

2.0 EVALUATION

GSU's June 28, 1989 submittal states that the current estimate for the procurement cycle and installation of modifications to the neutron monitoring system will require 18 months. Thus, the ten month period specified in the current license condition cannot be achieved at this time.

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 between June and September 1989, depending on the option, to ensure delivery and final design for installation during the third refueling outage scheduled to begin in September 1990. GSU further stated that to procure, design and install a neutron monitoring system prior to receiving the NRC safety evaluation on the BWROG topical report could result in undue hardship and unnecessary costs if implementation proceeds in accordance with the current license condition. Nonetheless, GSU has maintained a bid specification for the purchase of a system meeting Regulatory Guide 1.97 requirements that is ready for issuance. The licensee has also provided quarterly reports to the NRC regarding the status of action regarding the procurement activities.

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 previously found acceptable for interim operation in approving Amendment No. 28, 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 June 28, 1989 proposed change to license condition 2.C(14), Attachment 5, Item 3, will not adversely affect the safety of the plant during interim operation and is acceptable. The staff has determined that the modifications, if needed, must be finished prior to startup from the fourth refueling outage. This schedule should allow ample time to complete the related review and implementation work.

The licensee has also requested that their July 6, 1988 commitment to provide quarterly reports regarding progress of neutron flux monitoring instrumentation procurement be suspended until after the issuance of the staff's SE on NEDO-31558. GSU's basis for this request is that no further specific action remains on their part prior to generic resolution. The staff finds that this is acceptable.

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.

Dated: October 4, 1989

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