ENCLOSURE

SAFETY EVALUATION REPORT SUPPLEMENT
SEABROOK NUCLEAR STATION, UNITS 1 AND 2
DOCKET NOS. 50-443 AND 50-444

A. INTRODUCTION

By letter dated October 30, 1989, the applicant submitted proposed changes to the Seabrook inservice testing (IST) program including a one-time relief request for eight recently repaired safety injection (SI) system check valves. The original IST program was reviewed and approved by the staff in the Seabrook SSER No. 6 dated October 1986.

B. DISCUSSION

The proposed IST program changes and associated additional relief requests are primarily a result of system modifications to the Residual Heat Removal (RHR) and Containment Building Spray (CBS) systems. The staff finds that the RHR/CBS systems modifications, corresponding IST program changes, and associated additional relief requests are made in accordance with previous staff review results, and therefore are acceptable.

A one-time relief request which was also included in the applicant's October 30, 1989, letter addresses the post-maintenance requirements of ASME Section XI, IWV-3200, for eight recently repaired SI check valves. However, a post-maintenance full stroke test of these valves requires that the reactor vessel head be removed. Since removing the reactor vessel head to perform the test is impractical in its current operation mode, the applicant proposed to postpone the required test to the first refueling outage. The staff finds that relief as requested originally from the post-maintenance test of all eight SI check valves cannot be granted since a meaningful partial flow test can be performed. On the basis of the staff finding, the licensee modified the one-time relief request and proposed by letter dated December 27, 1989, a partial flow stroke test utilizing an RHR pump and temporary flow paths connected to the SI system.

A review of the proposed partial flow test method and the test set-up indicates that each of the eight SI check valves will be tested and flow through each valve quantified. The flow resistance of the normal SI flow paths is many times lower than tne flow resistance of the proposed test loop while the SI pump head is many times higher than that of the RHR pumps. Accordingly, in view of the high flow resistance of the test loop and the low RHR pump head, performance of the proposed partial flow through each check valve should provide adequate assurance that the check valves will lift to a position that significantly high flow through the SI system would be delivered by the SI pumps.

C. CONCLUSION

Based on the partial flow test discussed above, the acceptable results from last disassembly and inspection, the acceptable results of the radiography after reassembly, the lack of reported industry experience of similar check valves not opening when required, the applicant's commitment to perform a full flow stroke test of these valves during the first scheduled refueling outage but in no case later than June of 1992, and the impracticality of performing the required test during the current mode of operation, the staff finds in accordance with 10CFR50.55a(g)(6)(i), that the one-time partial relief from the post-maintenance test of the ASME Code Section XI, IWV-3200, as requested by the applicant's December 27, 1989, letter authorized by law and will not endanger life or property or the common defense and security and is otherwise in the public interest giving due consideration to the burden upon the licensee that could result if the requirements of the IST program for these eight check valves were imposed on the facility. Accordingly, the applicant's request of October 30, 1989, as modified by its letter of December 27, 1989, is acceptable and therefore granted.