



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
RELATED TO AMENDMENT NO. 26 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 31, 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 add Action Statements to Technical Specification (TS) 3.1.3.1 in the event that the scram discharge volume (SDV) vent and drain valves become inoperable. Current TSs 4.1.3.1.1 and 4.1.3.1.4 require that surveillance testing of these vent and drain valves be performed to demonstrate the operability of the SDV; however, there are currently no Action Statements provided should any of these valves become inoperable.

The proposed TSs are similar to those previously approved in the staff's October 17, 1986 safety evaluation supporting the issuance of Amendment No. 21 to Facility Operating License No. NPF-29 for the Grand Gulf Nuclear Station, Unit No. 1.

2.0 EVALUATION

The purpose of the SDV is to serve as a collection volume for water displaced by the control rod drive pistons during a scram. During normal operation, the SDV vent and drain valves remain open to allow operational leakage from the scram system to drain from the SDV to the containment equipment drain sumps. The vent and drain lines have redundant valves on each of these lines. These valves automatically close upon the receipt of a scram signal and isolate the SDV thereby preventing the discharged reactor coolant from being released to the containment during a scram. In addition, these valves close in the event of loss of air and/or loss of electrical power.

To assure that there will be sufficient capability in the SDV to accommodate the displaced water, the reactor is automatically scrammed if the water level in the SDV exceeds the level setpoint. This setpoint is selected so that there will be adequate capacity for the discharged reactor coolant. High water level in the SDV is detected with both float switches and level transmitters.

Proposed Action Statement d. of TS 3.1.3.1 gives the required action if one vent valve and/or one drain valve is found to be inoperable and open. As previously stated, during normal operation, the SDV is vented and drained to the containment equipment sump. Each vent and drain line

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contains two valves in series which close on a scram signal. The proposed Action d. allows 24 hours of operation with the inoperable valve(s). If the inoperable valve(s) cannot be made operable within 24 hours, the plant shall be placed in at least hot shutdown within the next 12 hours. This proposed Action Statement conforms to that of the Grand Gulf, Perry, and Clinton facilities, which are also BWR-6, Mark III plants. The staff concludes that proposed Action Statement d. is acceptable because in the event of a scram, the remaining operable vent and drain valves can still be expected to perform their function of isolating the SDV.

Proposed Action Statement e. of TS 3.1.3.1 gives the required action if two SDV vent and/or drain valves are found to be inoperable and open. In the event of a scram while operating in this condition, reactor coolant would be released to the containment equipment drain sumps. This effluent would be contained within primary containment. Adequate reactor vessel makeup water would be available from the condensate and feedwater system or the high pressure core spray. The proposed action includes requiring that one vent valve and one drain valve be made operable (permit closure on a scram) within eight hours. This is more restrictive than the 24 hours allowed for operation with one vent valve and/or one drain valve inoperable and open as discussed in proposed Action Statement d. The eight hours allows time for the restoration of the valve operability. The action further requires restoring all valves to operable status in the next 16 hours or be in at least hot shutdown within the next 12 hours. This additional 16 hour restoration time for the remaining inoperable vent valve and/or drain valve is consistent with proposed Action Statement d. The required action is that all vent valves and drain valves be made operable within 24 hours. The staff concludes that proposed Action Statement e. is acceptable.

Proposed Action Statement f. of TS 3.1.3.1 provides the required actions if any SDV vent and/or drain valve is found to be inoperable and closed. The action is to restore all valves to the operable status within 8 hours or be in at least hot shutdown within the next 12 hours. The staff finds that is acceptable because if a scram does occur, the inoperable valve(s) is in the preferred closed position and therefore the safe shutdown capability of the plant would not be adversely affected. The staff concludes that the proposed Action Statement 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.

Date: August 29, 1988

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