



**GULF STATES UTILITIES COMPANY**

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File No. G9.5,G9.8.6.2

Mr. Harold R. Denton, Director  
Office of Nuclear Reactor Regulation  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Mr. Denton:

River Bend Station - Unit 1  
Docket No. 50-458

Enclosed is a minor revision to Gulf States Utilities Company (GSU) Fire Hazards Analysis submittal dated February 13, 1984. The enclosed page and revised insert will be incorporated, along with the referenced letter, in a future amendment to the Final Safety Analysis Report (FSAR).

Sincerely,

*J. E. Booker*

J. E. Booker  
Manager-Engineering  
Nuclear Fuels & Licensing  
River Bend Nuclear Group

*JEB*  
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Enclosure

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thereof provided between components which accomplish similar functions within redundant systems, for redundant components within the same system, and for the power and control wiring associated with the components.

The effects of single failures of the fire detection and protection systems were analyzed. All areas containing safety-related components are protected by primary and backup fire suppression systems. Since safety-related areas are provided with more than one detector, failure of a detector to operate does not cause a loss of system function. Also, the detection system is a supervised system and its failure is alarmed in both control rooms.

The fire protection systems in areas containing Seismic Category I equipment are seismically supported so that during a Seismic event, system components do not impair the ability of redundant engineered safety features to safely shut down the plant or limit the release of radioactivity to the environment.

#### 9A.2.1.1 Methodology

The methodology for safe shutdown analysis is given in Figure 9A.2-11. This section discusses specific RBS design features which are important in the analysis.

1. The safe shutdown equipment and cables include those that meet acceptable definitions for associated circuits. (See Section 7.4.1 for a definition of safe shutdown methods.)
2. A transient fire is considered to be caused due to the combustibles required to be used in the plant area for the purpose of repair, maintenance, and fuel loading operations. These combustibles are neither fixed quantity nor fixed quality. These combustibles include paper, wood, rags, packing materials, lubricating oils, etc. These combustibles are under the scrutiny of administrative control. Transient fires are not considered in these two cases.

3. Inadvertent actuation of a sprinkler system in one fire area is analyzed to ensure that there is not a loss of redundant safety-related equipment.

4. Fire protection for the main control room is analyzed separately and is described in GE Topical Report NEDO-10466A. Section 4.0 of this report

Insert for Page 9A.2-2

Fire suppression systems are designed to assure that their rupture or inadvertent operation in a fire area does not significantly impair the design capability of safety related structures, systems, or components in accordance with GDC 3. With loss of offsite power, the effect on diesel generator operation was evaluated, and it was determined that since the fire protection system inside the diesel generator building is seismically designed at least one train of onsite power is assured. The design provides that:

- A. The fire protection piping inside the diesel generator building meets the requirements of ANSI B31.1, and the pipe supports comply with the requirements of AISC, including seismic loads.
- B. Although the preaction valves for all diesel generator zones may be actuated, the suppression system in fire areas DG-1,2, and 3 is of the closed head design.

Fire areas generally contain only one division of electrical equipment such as MCC and switchgear which might be involved in a fire or be inadvertently sprayed by the fire brigade, yet fire brigade usage of fire suppression fog nozzles was evaluated. The safe shutdown analysis shows that there is at least one other set of systems, equipment, and cables located outside the fire area free of fire damage, or protected by an approved method (see Legend for Table 9A.2-35), or described in fire brigade procedures to ensure safe shutdown.