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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 1000
ARLINGTON, TEXAS 76011

December 29, 1978

In Reply Refer To:
RIV

Docket Nos. 50-458/IE Circular 78-19
50-459/IE Circular 78-19

Gulf States Utilities
Attn: Mr. L. L. Humphreys
Senior Vice President,
Energy Development
Post Office Box 2951
Beaumont, Texas 77704

Gentlemen:

The enclosed Circular 78-19 is forwarded to you for information. If there are any questions related to your understanding of the requested actions, please contact this office.

Sincerely,

A handwritten signature in cursive script, appearing to read "Karl V. Seyfrit".

Karl V. Seyfrit
Director

Enclosures:

1. IE Circular No. 78-19
2. List of IE Circulars
Issued in 1978

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

IE Circular No. 78-19
Date: December 29, 1978
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MANUAL OVERRIDE (BYPASS) OF SAFETY SYSTEM ACTUATION SIGNALS

Description of Circumstances:

A review of several recent events has raised questions about safety system circuit designs which incorporate manual override (bypass) features. The two events described below directly relate to the practice of containment purging during normal plant operation by manually overriding containment isolation signals. In these instances the automatic isolation function of the purge system containment isolation valves was unintentionally made inoperable, and this condition was neither continuously indicated in the control room nor known to the plant operators.

During a review of operating procedures on July 25, 1978, the Northeast Nuclear Energy Company discovered that since May 1, 1978, intermittent containment purge operations had been conducted at Millstone Unit No. 2 with the safety actuation isolation signals to both inlet and outlet redundant containment isolation valves (48 inch butterfly valves) in the purge inlet and outlet penetrations manually overridden and inoperable. The isolation signals which are required to automatically close the purge valves for containment integrity were manually overridden to allow purging of containment with a high radiation signal present. The manual override circuitry designed by the plant's architect/engineer defeated not only the high radiation signal but also all other isolation signals to these valves. To manually override a safety actuation signal, the operator cycles the valve control switch to the closed position and then to the open position. This action energized a relay which blocked the safety signal and allowed manual operation independent of any safety actuation signal. This circuitry was designed to permit reopening these valves after an accident to allow manual operation of certain safety equipment.

On September 8, 1978, the Public Service Electric and Gas Company advised the staff that, as a matter of routine, Salem Unit No. 1 has been venting the containment through the containment ventilation system valves to reduce pressure. In certain instances this venting has occurred with the containment high particulate radiation monitor isolation signal to the purge and pressure-vacuum relief valves overridden. Override of

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