PSE&G Public Service Electric and Gas Company

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Nuclear Assurance and Regulation

May 21, 1985

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, Maryland 20814

Attention: Mr. Walter Butler, Chief
Licensing Branch 2
Division of Licensing

Gentlemen:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
10CFR50.62 - ATWS RULE COMPLIANCE

Pursuant to 10CFR50.62 (c) (6), Public Service Electric and Gas Company hereby submits the following information to demonstrate compliance with paragraph (c) (1) through (c) (5) of 10CFR50.62 for Hope Creek Generating Station.

10CFR 50.62

(c) Requirements

(1) Each pressurized water reactor must have equipment from sensor output to final actuation device, that is diverse from the reactor trip system, to automatically initiate the auxiliary (or emergency) feedwater system and initiate a turbine trip under conditions indicative of an ATWS. This equipment must be designed to perform its function in a reliable manner and be independent (from sensor output to the final actuation device) from the existing reactor trip system.

Response

HCGS is a boiling water reactor, therefore, this requirement is not applicable to HCGS.

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(2) Each pressurized water reactor manufactured by Combustion Engineering or by Babcock and Wilcox must have a diverse scram system from the sensor output to interruption of power to the control rods. This scram system must be designed to perform its function in a reliable manner and be independent from the existing reactor trip system (from sensor output to interruption of power to the control rods).

Response

HCGS is a boiling water reactor, therefore, this requirement is not applicable to HCGS.

(3) Each boiling water reactor must have an alternate rod injection (ARI) system that is diverse (from the reactor trip system) from sensor output to the final actuation device. The ARI system must have redundant scram air header exhaust valves. The ARI must be designed to perform its function in a reliable manner and be independent (from the existing reactor trip system) from sensor output to the final actuation device.

Response

HCGS has implemented an Alternate Rod Insertion (ARI) system that is diverse from the reactor trip system.

(4) Each boiling water reactor must have a standby liquid control system (SLCS) with a minimum flow capacity and boron content equivalent in control capacity to 86 gallons per minute of 13 weight percent sodium pentaborate solution. The SLCS and its injection location must be designed to perform its function in a reliable manner. The SLCS initiation must be automatic and must be designed to perform its function in a reliable manner for plants granted a construction permit after July 26, 1984, and for plants granted a construction permit prior to July 28, 1984, that have already been designed and built to include this feature.

Response

The HCGS standby liquid control system (SLCS) has a minimum flow capacity of 86 gpm of 13 weight percent sodium pentaborate solution. The SLCS initiation is automatic. Boron injection is through the core spray nozzle and the SLCS pipe is connected to the core spray pipe upstream of the HPCI line connection to the core spray.

(5) Each boiling water reactor must have equipment to trip the reactor coolant recirculating pumps automatically under conditions indicative of an ATWS. This equipment must be designed to perform its function is a reliable manner.

Response

The HCGS reactor coolant recirculating pumps are tripped automatically under conditions indicative of an ATWS.

10 CFR 50.62 (d) Implementation

Response

The HCGS ATWS components are safety-related. The quality assurance requirements of ATWS components comply with Regulatory Guide 1.30, Rev. 0. The above items are presently incorporated in the HCGS design and will be installed and operational by initial fuel load, scheduled for January 1986.

Should you have any questions in this regard, please contact us.

Very truly yours,

C D. H. Wagner
USNRC Licensing Project Manager

A. R. Blough
USNRC Senior Resident Inspector