



**ENTERGY**

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Grand Gulf Nuclear Station

June 28, 1996

U.S. Nuclear Regulatory Commission  
Mail Station P1-37  
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Grand Gulf Nuclear Station  
Docket No. 50-416  
License No. NPF-29  
Response to Generic Letter 95-07  
Request for Additional Information

GNRO-96/ 00078

Gentlemen:

Our submittals of October 11, 1995 (GNRO-95/00113) and February 13, 1996 (GNRO-96/00011) were made in response to the requirements of Generic Letter 95-07, "Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves". By letter dated May 29, 1996 (GNRI-96/00123), the NRC requested additional information pertaining to our submittals and Generic Letter 95-07.

The requested information is attached for your use to complete your review of Grand Gulf Nuclear Station's response to Generic Letter 95-07. Please contact Ms. Rita Jackson at (601) 437-2149 if you have questions.

Yours truly,

CRH/RRJ

attachment: Response to NRC Request for Additional  
Information

cc: (See Next Page)

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Response to NRC Request for Additional Information  
Generic Letter 95-07

NRC Request - Item 1

Discuss if valves (normally open, safety-related power-operated gate valves which are closed for test or surveillance, but must return to the open position) were included in your review, and how potential pressure locking or thermal binding concerns were addressed.

GGNS Response

As discussed in our February 13, 1996 submittal, "evaluations encompassed all system modes of operation which are within the plant's design basis. The evaluations were completed through review of procedures, ... surveillance testing ..." GGNS has sixteen normally open valves with an open safety function, but which are closed for test or surveillance (Table 1).

These valves are acceptable per the requirements of Generic Letter 95-07 because of one or more of the following:

- Five have been, or are scheduled to be, modified to prevent pressure locking as discussed in GGNS's February 13, 1996 submittal.
- The remaining eleven valves were evaluated for pressure locking/thermal binding during all modes of plant operation, including surveillance testing. It was determined, during this evaluation, that either the valves would be acceptable, or the valves are not required to be operable during the surveillance test. The valves not required to be operable during surveillance testing are not relied on to function until the system is operable per Technical Specifications.

NRC Request - Item 2

Describe the evaluations and training for plant personnel that have been or will be conducted for each valve design or procedural modification (to preclude pressure locking or thermal binding) to assure that the modifications will not have an adverse impact on plant safety.

GGNS Response

The valve modifications to susceptible valves, including those already modified and those planned, involve providing a vent path from the bonnet area back to the system piping to prevent pressure locking (Figure 1). These modifications result in one side of the double disk performing the isolation function for the valve.

The loss of one side of valve disk is considered for impact on the plant. To ensure that the modifications did not, or will not, have an adverse impact on plant safety, evaluations were performed for each of the changes in accordance with 10CFR50.59. Post modification testing, including Local Leak Rate Testing, confirms the acceptability of the change. The fact the valves would become unidirectional was considered. For example, a manual valve was added in the vent line for the HPCS injection valve that is closed during the quarterly pump surveillance. This will prevent the injection of water into the vessel due to disc flexing from the pump discharge pressure during performance of this test.

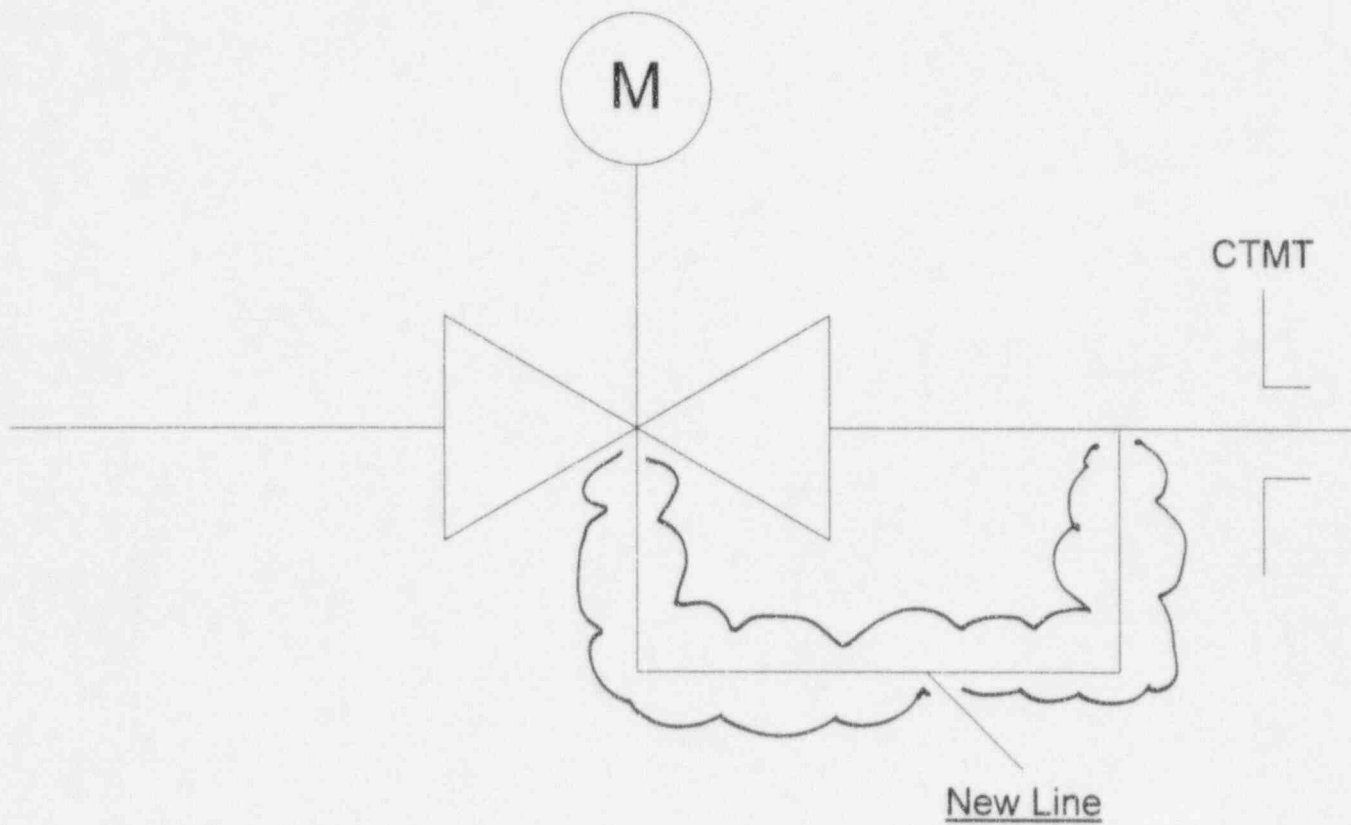
All design changes, including valve modifications, are evaluated for the appropriateness for training plant personnel. Those deemed appropriate are included in lesson plans or are made part of required reading.

Training on the modifications to valves to prevent pressure locking has been provided to Licensed Operators, and future modifications will be reviewed for appropriateness for training. No training was performed on the procedure changes, due to the minor nature and the fact it is a straight forward change in valve lineup restoration, clearly spelled out.

TABLE 1

Valve Number	Valve Description
E12F004A	RHR Pump Suppression Pool Suction Isolation
E12F004B	RHR Pump Suppression Pool Suction Isolation
E12F004C	RHR Pump Suppression Pool Suction Isolation
E12F027A	RHR System Shutoff Valves
E12F027B	RHR System Shutoff Valves
E12F047A	HX Inlet Isolation
E12F047B	HX Inlet Isolation
E12F064A	RHR Min Flow Isolation
E12F064B	RHR Min Flow Isolation
E12F064C	RHR Min Flow Isolation
E21F001	LPCS Suction
E21F011	LPCS Min Flow
E51F063	RCIC Steam Supply Drywell Isolation
E51F064	RCIC Steam Supply Drywell Outboard Isolation
E51F068	RCIC Turbine Exhaust to Suppression Pool Isolation
E51F077	RCIC Turbine Exhaust Outboard Vacuum Breaker Isolation

FIGURE 1



Typical GGNS Pressure Locking Modification

BEFORE THE  
UNITED STATES NUCLEAR REGULATORY COMMISSION

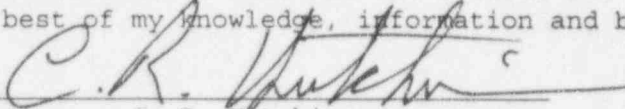
LICENSE NO. NPF-29

DOCKET NO. 50-416

IN THE MATTER OF  
MISSISSIPPI POWER & LIGHT COMPANY  
and  
SYSTEM ENERGY RESOURCES, INC.  
and  
SOUTH MISSISSIPPI ELECTRIC POWER ASSOCIATION  
and  
ENERGY OPERATIONS, INC.

AFFIRMATION

I, C. R. Hutchinson, being duly sworn, state that I am Vice President, Operations GGNS of Entergy Operations, Inc.; that on behalf of Entergy Operations, Inc., System Energy Resources, Inc., and South Mississippi Electric Power Association I am authorized by Entergy Operations, Inc. to sign and file with the Nuclear Regulatory Commission, this Request for Additional Information to Generic Letter 95-07; that I signed this application as Vice President, Operations GGNS of Entergy Operations, Inc.; and that the statements made and the matters set forth therein are true and correct to the best of my knowledge, information and belief.

  
C. R. Hutchinson

STATE OF MISSISSIPPI  
COUNTY OF CLAIBORNE

SUBSCRIBED AND SWORN TO before me, a Notary Public, in and for the County and State above named, this 28<sup>th</sup> day of June, 1996.

(SEAL)

  
  
Notary Public

My commission expires:

MISSISSIPPI STATEWIDE NOTARY PUBLIC  
MY COMMISSION EXPIRES JUNE 5, 1999  
BONDED THRU STECALL NOTARY SERVICE