ENTERGY

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February 13, 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
Generic Letter 95-07, 180 Day Response

GNRO-96/00011

Gentlemen:

Pursuant to Generic Letter 95-07, "Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves", Grand Gulf Nuclear Station is submitting the 180 day required response (attached). The Generic Letter required licensees to provide written response regarding the following specified information:

1. The susceptibility evaluation of operational configurations and further analyses performed in response to (or consistent with) the requested actions, as well as, the criteria for determining susceptibility to pressure locking or thermal binding;

2. The results of the susceptibility evaluation and any further analyses including a listing of the susceptible valves identified;

3. The corrective actions, or other dispositioning, (including schedule) for the valves identified as susceptible to pressure locking or thermal binding.

Please contact Rita Jackson at (601) 437-2149 if you have questions regarding this submittal.

Yours truly,

CRH/RRJ/rrj
attachments: 1. GGNS GL 95-07 180 Day Response
2. Affirmation
cc: (See Next Page)

A056

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Entergy Operations, Inc.

Grand Gulf Nuclear Station

Generic Letter 95-07
180 Day Response
Evaluation of Gate Valves
For Thermal Binding
And Bonnet Overpressurization

INTRODUCTION

Generic Letter 95-07, Pressure Locking and Thermal Binding of Safety-Related Power-Operated Gate Valves, was issued August 17, 1995. The NRC staff requested a preliminary evaluation of pressure locking and thermal binding of safety-related power-operated gate valves and, subsequently, a more detailed evaluation and resolution of the issue.

Within 180 days of the date of the generic letter, licensees were to perform the following actions:

1. Evaluate the operational configurations of safety-related power-operated gate valves in its plant to identify valves that are susceptible to pressure locking or thermal binding;

2. Perform further analyses as appropriate, and take needed corrective actions (or justify longer schedules), to ensure that the susceptible valves identified in 1 are capable of performing their intended safety function(s) under all modes of plant operation, including test configuration.

The NRC requested that within 180 days of issuance of the generic letter each licensee also submit the following information:

1. The susceptibility evaluation of operation configurations and further analyses performed in response to (or consistent with) the requested actions, as well as, the criteria for determining susceptibility to pressure locking or thermal binding.

2. The results of the susceptibility evaluation and any further analyses including a listing of the susceptible valves identified.

3. The corrective actions, or other dispositioning, (including completion schedule) for the valves identified as susceptible to pressure locking or thermal binding.

SCOPE

Prior to Generic Letter 95-07, Grand Gulf Nuclear Station (GGNS) evaluated the installed safety related gate valves using industry information available at that time. As a result of the initial evaluation, eight valves were modified to eliminate the potential of pressure locking preventing the valves from opening: E12F004A, E12F004B, E12F042A, E12F042B, E12F042C, E21F005, E22F004, and E22F015.

The issuance of Generic Letter 95-07 provided additional guidance, and subsequently an additional review was performed. It was determined that of 82 power-operated candidate valves, 18 were within the scope of Generic Letter 95-07 (safety function to open and susceptible to pressure locking). There were no valves susceptible to thermal binding. These 18 susceptible valves were evaluated and procedure changes were made for two valves to remove the pressure locking potential susceptibility. The remaining 16 susceptible valves were evaluated using the analytical calculation methodology. Non-conformance documentation was initiated for seven valves. It was determined by calculation that the pressure locking phenomena would not affect valve operation or result in exceeding any motor, valve or actuator limitation for the remaining nine valves.

The evaluations encompassed all system modes of operation which are within the plant's design basis. The evaluations were completed through review of procedures, system design basis documents, system flow diagrams, surveillance testing and maintenance evolutions. Each valve evaluated was categorized under hydraulic locking, boiler effect or thermal binding, as Not Susceptible, Non-Priority Susceptible or Priority Susceptible. The difference between Non-Priority and Priority Susceptible is whether the valve has a safety function to open. As stated during the NRC sponsored workshop on Generic Letter 95-07 held at Region IV, valves without an active safety function to open (Non-Priority) are not considered part of the scope of GL 95-07.

THERMAL BINDING AND BONNET PRESSURIZATION EVALUATION CRITERIA

Provided below are the criteria used for screening the valves for thermal binding, hydraulic locking and boiler effect. Attached Figures 1, 2, and 3 provide the review logic used when evaluating the 82 candidate valves.

Thermal Binding Evaluation Criteria (Figure 1)

Piping Thermal Expansion Loads are generally not significant and, in fact, are not discussed as a failure mechanism in SOER 84-7 or AEOD/S92-07. In addition, no documented industry gate valve failures have ever been attributed to this failure mechanism as documented in Information Notice 92-26, SER 20-84, SER 77-83 and SER 8-88. Therefore, review of gate valves for piping thermal expansion loads was not necessary.

Valve Thermal Expansion Loads (Stem Elongation) may create a closing force which can contribute to thermal binding. This closing force will tend to drive the disc more tightly into the seat, and on cooling the Thermal Contraction Load (Body Contraction) effects may be increased. These phenomena were evaluated concurrently using the following defined criteria.

A. System Temperature: Valves located in systems with operating temperatures of 200°F or less were exempt from consideration. 200°F was chosen as the dividing point between a hot and cold system, based upon past evaluations of thermal binding for the Limerick Generating Station, the Perry Nuclear Power Plant and the Susquehanna Steam Electric Station. INPO confirmed the acceptability of the 200°F dividing line during the Susquehanna evaluation. The line temperatures that were used during this evaluation are the maximum service condition values specified in line lists supplemented by Process Diagrams and System Flow Diagrams (SFD).

B. Disc Configuration: The disc configuration of each gate valve was determined by looking at the appropriate valve drawing.

   Double disc type gate valves are not susceptible to thermal binding. The wedging mechanism between the discs collapses as the stem rises allowing the discs to move inward away from the seats, which permits the discs to be raised regardless of the system temperatures.

C. Potential for Movement: Power-operated valves that have the power removed from them, or are in some other way disabled or locked in position were not considered for thermal binding since they are not expected to functionally change positions during plant operation. Keylocked valves, however, were included in the evaluation since it is easy to disengage the keylock and operate the valve. Status of the valve was determined through review of the P&IDs and System Operating Procedures.

D. Valve Function: Thermal binding occurs when valves are closed hot and allowed to cool before being re-opened. Plant procedures, system design criteria and system operating instructions were reviewed to determine the valve functions and system operating modes. The safety-related gate valves that have a safety function to open were identified. Valves that do not have a safety function to open are not within the scope of GL 95-07 and will not affect design basis plant safe shutdown if they are bound shut.

<u>**Hydraulic Locking Evaluation Criteria**</u> (Figure 2)

Gate valve hydraulic locking phenomenon was evaluated using the following criteria.

A. Disc Configuration: As stated in the thermal binding discussion above, the disc configuration of each valve was determined by review of the valve drawings. Solid-wedge gate valves were exempted from consideration for hydraulic locking, as it is not possible for the faces of a solid wedge to be pushed in opposite directions against both seating surfaces.

B. Bonnet Relief: Valves with an open bonnet drain connected to an open piping path, a bonnet relief valve or a hole through either one side of the valve bridge or the valve disc were exempted from consideration for hydraulic locking, as any pressure that leaks into the bonnet area will have an escape path to prevent hydraulic locking. The existence of an open bonnet drain path was confirmed by use of the P&IDs, valve drawings, or plant walkdowns.

C. Potential for Movement: Power-operated valves that have the power removed, or are in some other way disabled or locked in position were exempted from consideration for pressure locking, since they are not expected to functionally change positions during normal operation. Keylocked valves were included in the evaluation since it is easy to disengage the keylock and operate the valve. Status of the valve was determined through review of the P&IDs and System Operating Procedures.

D. Valve Function: Hydraulic locking can occur when a closed flex-wedge or double-disc gate valve is required to open and a differential pressure condition exists between higher pressure fluid in the bonnet cavity and lower pressure in the process line. Plant procedures, system design criteria and system operating instructions were reviewed to determine valve functions. The safety-related gate valves that have a safety function to open were designated on the evaluation sheets. Valves that do not have a safety function to open are not in the scope of GL 95-07 and will not affect design basis plant safe shutdown if they are bound shut.

E. Line Pressure: If the pressure in the piping upstream or downstream of the valve is greater than or equal to the pressure in the valve bonnet, the line pressure will offset the pressure trapped between the faces of the disc. This will result in a maximum differential pressure across a single face of the valve disc, which for motor-operated valves was analyzed in the existing Generic Letter 89-10 maximum expected differential pressure (MEDP) calculations. The upstream and downstream piping pressures at opening were determined using the plant procedures, system hydraulic calculations and the appropriate MEDP calculations.

Boiler Effect Evaluation Criteria (Figure 3)

Gate valve bonnet boiler effect phenomenon were evaluated using the following criteria.

A. Gas Systems: Valves which are part of gas systems were not considered for liquid entrapment (Boiler Effect) if their valve stems are oriented above the horizontal. It is highly unlikely that the valve bonnet would contain liquid in these orientations. Unless the bonnet contains a significant amount of liquid, it is not possible to build up the high pressures in the bonnet that would arise from heating an incompressible fluid.

B. Bonnet Relief: Valves with an open bonnet drain connected to an open piping path, a bonnet relief valve or a hole through either one side of the valve bridge or the valve disc were exempted from consideration for boiler effect hydraulic locking, as any pressure that leaks into the bonnet area will have an escape path to prevent hydraulic locking. The existence of an open bonnet drain path was confirmed by use of the P&IDs, valve drawings, or plant walkdowns.

C. Potential for Movement: Power-operated valves that have the power removed, or are in some other way disabled or locked in position were exempted from consideration for pressure locking, since they are not expected to functionally change positions during normal operation. Keylocked valves were included in the evaluation since it is easy to disengage the keylock and operate the valve. Status of the valve was determined through review of the P&IDs and System Operating Procedures.

D. Valve Function: Boiler effect occurs when a fluid-filled or partially filled bonnet is heated. The resulting pressure may inhibit the valve from re-opening. Plant procedures, system design criteria and system operating instructions were reviewed to determine the valve functions. The safety-related gate valves that have a safety function to open are so designated on the evaluation sheets. Valves that do not have a safety function to open are not in the scope of GL 95-07 and will not affect plant design basis safe shutdown if they are bound shut.

E. Valve Heat-up: Valves which have water in their bonnets experience the boiler effect phenomenon only when the trapped water is heated. For this criteria to apply, the valve must be in the closed position when the heat source is applied. The potential heat sources that must be considered for this evaluation are as follows.

- Normal ambient conditions: Normal ambient conditions, 75 °F to 95 °F, are typically not expected to cause bonnet pressurization since the normal ambient temperature swings are small enough and gradual enough not to cause binding. If binding were to occur, the bound conditions would become apparent during periodic system surveillance testing and the problem valves would be corrected.

- Accident ambient conditions: Accident ambient conditions potentially impact the fluid if they elevate the area temperature around a closed valve for a significant period of time (several hours) before the valve must open. Valves which are required to open within minutes of an accident would not be impacted by the elevated ambient conditions and are so designated on the evaluation sheets. Accident ambient conditions were determined from Technical Standards and their associated sources.

- Fluid Temperatures: If the closed valve is located in a stagnant branch of a hot system, there is the potential that the heat will conduct through the fluid and/or the piping. As the distance from the hot piping increases, the heat lost to the atmosphere increases and the potential for bonnet pressurization decreases. Based on thermal gradient calculations for similar nuclear power plant applications, 20 feet was used as the cutoff, beyond which the heat input to the bonnet will be insignificant. This 20 foot distance must be outboard of another closed valve, a vertical drop of piping, or a restricting orifice so as not to create convection currents in the fluid.

- Maximum theoretical valve internal pressure due to "boiler effect" can be determined by the Bulk Modulus of Elasticity equation (Reference Standard Handbook for Mechanical Engineers, Eighth Edition, Page 3-35) or by interpolation of specific volume data from the Steam Tables:

$$\text{Pressure}_{Max} = 319{,}000[(V_{Temp\text{-}hot} - V_{Temp\text{-}cold}) \div V_{temp\text{-}cold}]$$

Where: $V_{Temp\text{-}hot}$ = Specific Volume of water at the hot temperature as found in the Saturated Steam Table (Temperature).

$V_{Temp\text{-}cold}$ = Specific Volume of water at the cold temperature as found in the Saturated Steam Table (Temperature).

Maintenance Activity Evaluations

Maintenance activities that require valve closure for system/component isolation could potentially result in gate valves binding shut; for example, thermal binding following system removal from service and subsequent cool down, or hydraulic locking following hydrostatic testing.

During the maintenance activity the system would generally be out of service and normal valve operation is not required. However, following completion of the maintenance, normal valve operation would be demonstrated prior to returning the system to service as a part of the maintenance activity restoration, where a potential exists for gate valve pressure locking or thermal binding. This would be especially true for hydrostatic test boundary valves that have a safety function to open.

Detailed evaluations for valves that may be used for maintenance boundary valves are not considered justified on a valve by valve basis, since the possibilities are enormous, and were not included in the review. Additionally, detailed evaluations and justifications are not required for manual valves that are provided only to support system/component maintenance. These valves, when repositioned for maintenance must be restored to their normal position for system return to service and, if bound shut, would be identified and the condition corrected.

GGNS CALCULATIONAL METHODOLOGY

A calculational methodology (also known as hub calculation) was developed by GGNS based on "first principle" analysis (i.e. forces applied and basic trigonometric evaluation of valve discs/seats) as suggested in NUREG/CR-5807 "Improvements in Motor Operated Gate Valve Design and Prediction Models for Nuclear Power Plant Systems". These calculations were used to evaluate valve operability under combination loading of pressure locking and LOCA conditions.

On December 28 and 29, 1992, Wyle Labs performed pressure lock testing on a 14" - 900 # flexible wedge gate valve. The test simulated the accident conditions associated with the LPCI/LPCS Injection Valves (1E12F042A, 1E12F042B and 1E21F005). One of the goals of the test was to substantiate the calculational methodology and results which were used in the operability resolution of a GGNS material non-conformance report (MNCR). The MNCR stated with accident conditions, required thrust to open the referenced injection valves would be 82,645 lbs., 87,724 lbs., and 76,822 lbs, respectively. The variance in opening thrusts is attributed to the differences in the as-tested static opening thrust values. By utilizing the results of the Wyle test, the GGNS calculation yields 87,297 lbs required to open the test valve vs. 87,000 lbs noted during the test. This value is based on information (90,000 lbs closing, 55,000 lbs static opening, 452/1080/320 psig accident conditions test pressures) provided in the trip report after witnessing the Wyle test. As evidenced by these results, one could conclude that the methodology used in determining operability of the low pressure injection valves is acceptable and sound. This methodology was presented during a NRC public workshop on February 4, 1994 (summarized in NUREG/CP-0146).

To further validate this methodology, Entergy Operation, Inc. sites have reviewed dynamic test data from their GL 89-10 programs. Review of the data suggests that the hub analysis is conservative in its ability to estimate total required thrust for pressure loading conditions. Therefore, the hub analysis was used as the standard methodology to estimate thrust requirements for pressure locked valves. This methodology was the basis for decisions on valve/actuator acceptability, in determining the potential operability of a valve, or the need for modifications.

EVALUATION RESULTS

If a valve was determined to be susceptible to thermal binding or pressure locking and was within the scope of Generic Letter 95-07 (open safety function) it was designated as a PRIORITY valve. The classification of a valve as being susceptible to pressure locking or thermal binding may not necessarily imply a nonconforming condition. Procedure changes were made during the review that eliminated pressure locking susceptibility for two (2) valves. Four (4) non-conformance documents were initiated for seven (7) PRIORITY valves as a result of the review and evaluation. Operability determinations were made for the non-conformances as required by plant procedures. Typically this would consist of a determination if a problem exists, documentation of the problem, determination of operability, and resolution of the problem. It was determined that nine (9) other PRIORITY valves were susceptible, even with procedure changes. However, corrective action documents were not required as the valves would open to perform their safety functions when in a pressure locking scenario. Eight valves were modified prior to Generic Letter 95-07.

A summary of the results of the review and evaluation of the thermal binding/pressure locking susceptible valves is contained in Table 1. Actions that have been taken are also identified in the Table. The complete review and evaluation for the valves is available in documentation at GGNS.

CORRECTIVE ACTIONS/SCHEDULES

The 82 evaluated valves and a summary of evaluation results are provided in Table 1.
The following summarizes the corrective actions necessary for the 18 valves identified as PRIORITY valves.

- Procedure changes were made during the review that eliminated pressure locking susceptibility for two (2) of the 18 PRIORITY valves: E12FO27A and E12F027B, RHR System Shutoff Valves.

- Four nonconformance documents were initiated for seven (7) of the 18 PRIORITY valves as a result of review and evaluation. The operability of these valves was determined in accordance with appropriate plant procedures.

  Four of these valves will be modified prior to December 31, 1996:

  E12F024A - RHR A Test Return to Suppression Pool
  E12F024B - RHR B Test Return to Suppression Pool
  E51F013 - RCIC Injection Shutoff Valve
  E51F031 - RCIC Pump Suction from Suppression Pool

  The other three of these seven valves will be modified prior to June 30, 1998:

  E12F004C - RHR Pump C Suction from Suppression Pool
  E12F0064A - RHR A Minimum Flow Valve
  E12F0064B - RHR B Minimum Flow Valve

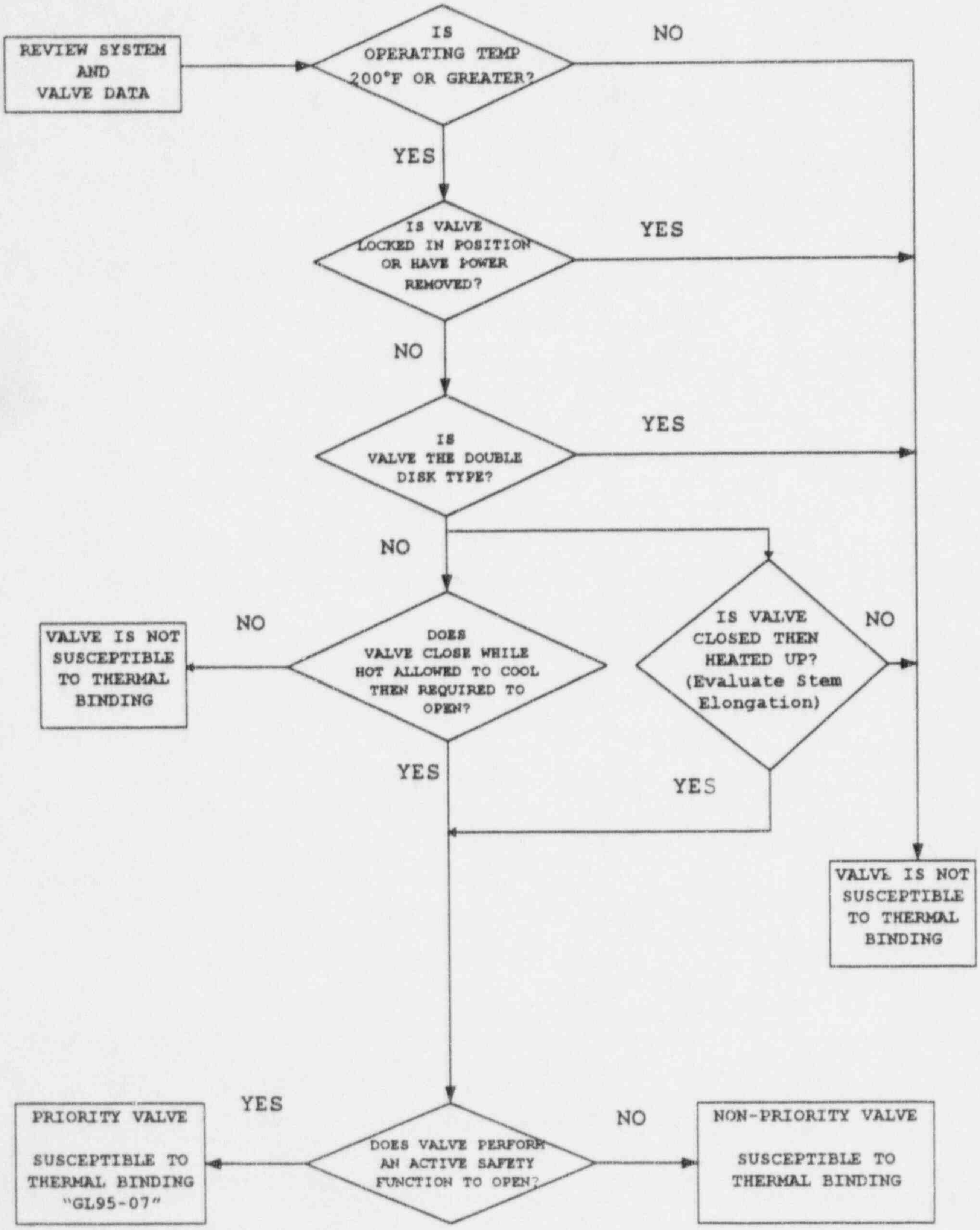
  The importances of GGNS safety related motor operated valves were evaluated in an Engineering Report. The evaluation methodology utilized in this report was that developed by the BWR Owners Group and documented in BWROG Topical Report NEDC 32264. The GGNS IPE results provided the basis for the evaluation. Valves E12F064A & B and E12F004C are all ranked low in this evaluation. This indicates that the overall contribution to GGNS core damage frequency or large release from these valves is low and that failure of the valves would not significantly change the outcome of the accidents considered in the IPE.

- The remaining nine (9) Priority valves have no action planned. It was determined by calculation that the pressure locking phenomena would not affect valve operation or result in exceeding any motor, valve or actuator limitation. These nine valves are:

  E12F028 A and E12F028B - Containment Spray Valves
  E12F064C - RHR C Minimum Flow Valve
  P41F064A - SSW Inlet to Control Room A/C A
  P41F064B - SSW Supply to CR A/C and ESF Rm Coolers B
  P41F081A - SSW Outlet from Control Room A/C A
  P41F081B - SSW Return from CR A/C B & ESF RM Coolers B
  P41F237 - SSW Inlet to ESF Room Coolers A
  P41F238 - SSW Outlet from ESF Room Coolers A

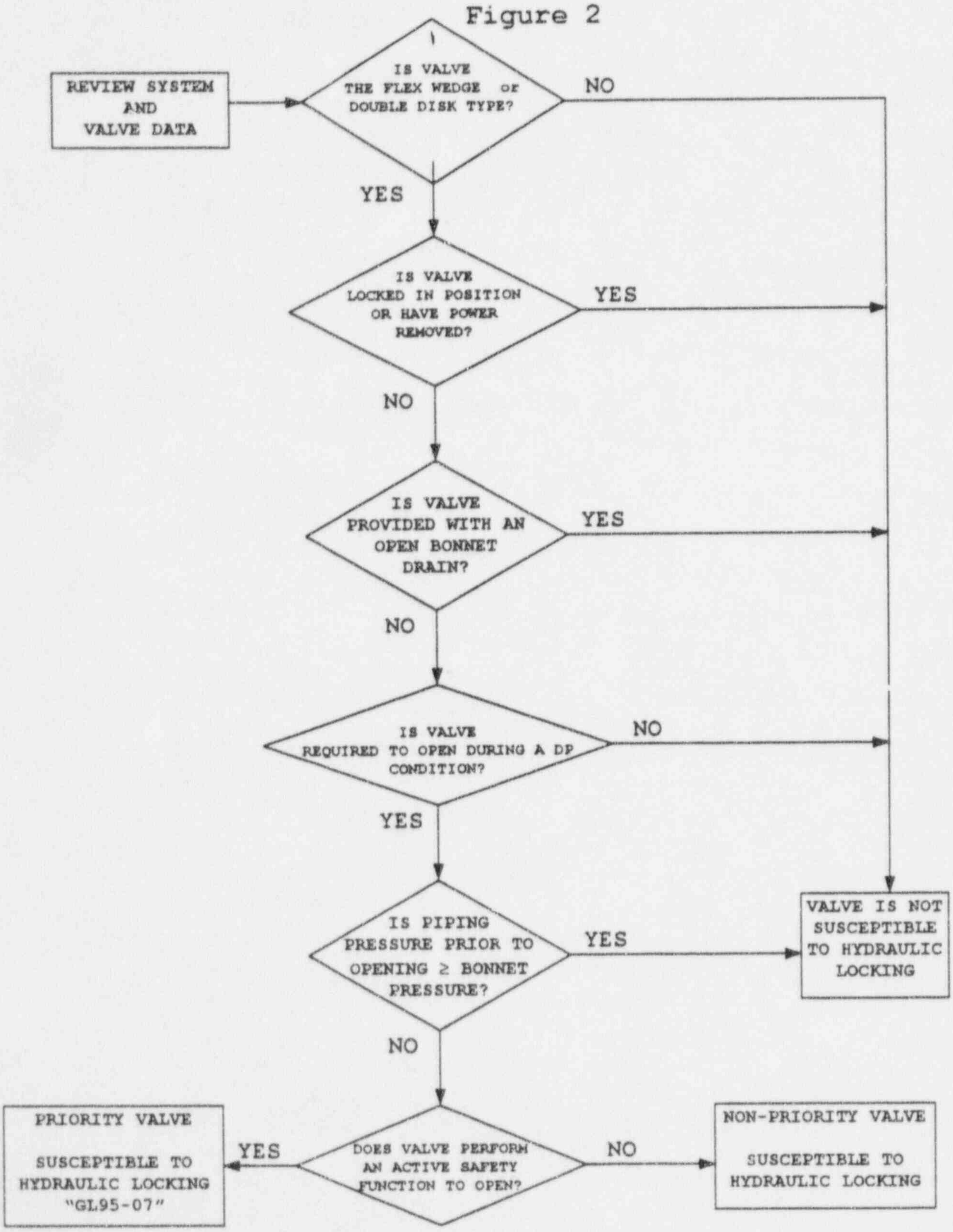
At the completion of this program, GGNS will have modified 15 valves with a safety related function to open as a result of pressure locking concerns. GGNS plans to continue to monitor industry information related to this issue and to reevaluate its position as necessary.

THERMAL BINDING REVIEW LOGIC
FIGURE 1



HYDRAULIC LOCKING REVIEW LOGIC

Figure 2



BOILER EFFECT REVIEW LOGIC

Figure 3

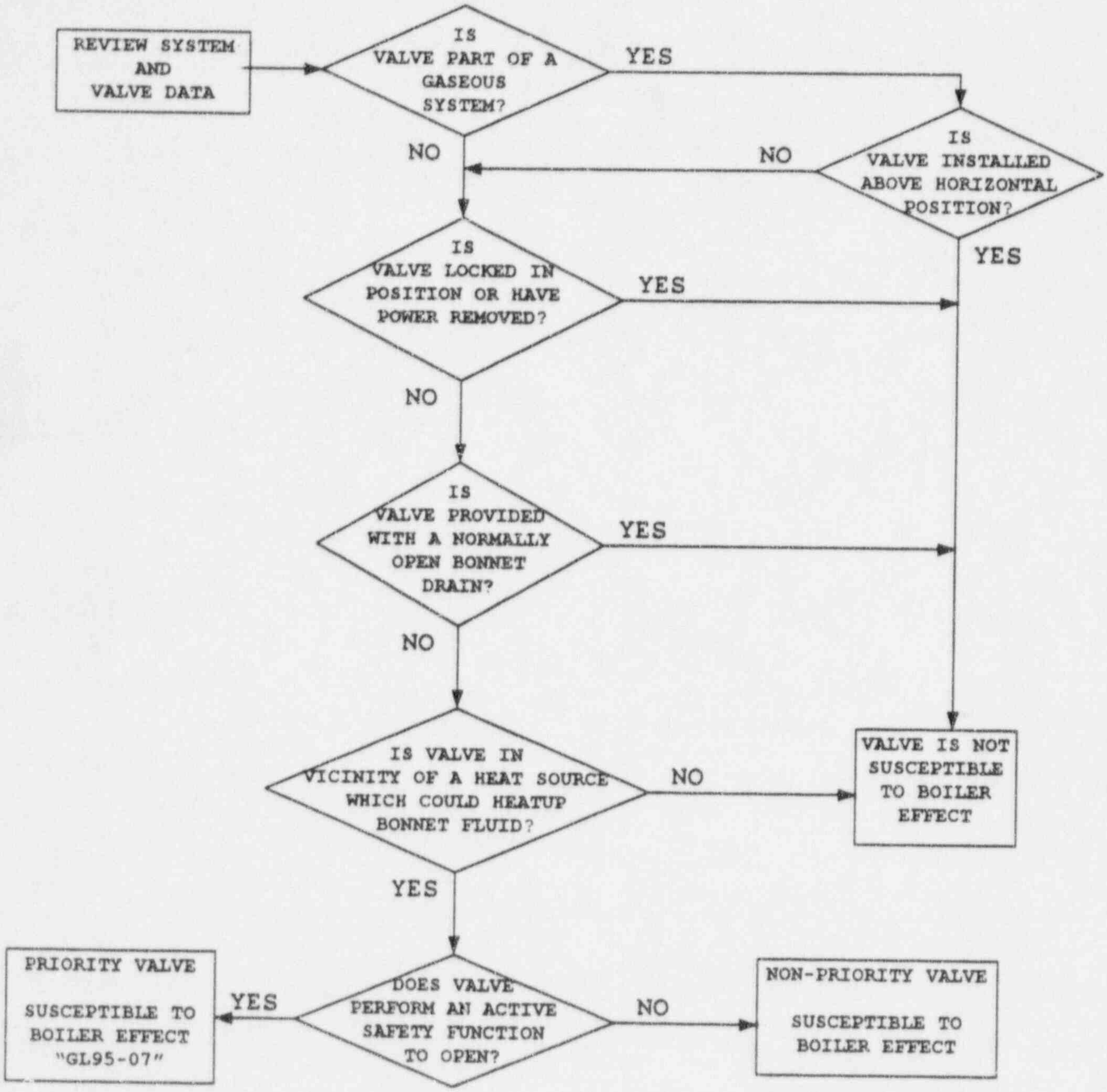


TABLE 1

HL-Hydraulic Locking BE-Boiler Effect

VALVE NUMBER	TYPE	THERMAL BINDING	PRESSURE LOCKING	PRIORITY VALVE	ACTION TAKEN TO DATE	PLANNED ACTION
B21F016	MOV	X	HL/BE	NO	N/A	NONE
B21F019	MOV	X	HL/BE	NO	N/A	NONE
B21F065A	MOV	X	HL/BE	NO	N/A	NONE
B21F065B	MOV	X	HL/BE	NO	N/A	NONE
B21F098A	MOV	X		NO	N/A	NONE
B21F098B	MOV	X		NO	N/A	NONE
B21F098C	MOV	X		NO	N/A	NONE
B21F098D	MOV	X		NO	N/A	NONE
B21F113	AOV	X		NO	N/A	NONE
B21F114	AOV	X		NO	N/A	NONE
E12F004C	MOV		HL	**YES**	MNCR 95/0270	modify by 6/98
E12F006A	MOV	X	HL/BE	NO	N/A	NONE
E12F006B	MOV	X	HL/BE	NO	N/A	NONE
E12F008	MOV	X	HL/BE	NO	N/A	NONE
E12F009	MOV	X	HL/BE	NO	N/A	NONE
E12F024A	MOV		BE	**YES**	MNCR 95/0286	modify by 12/96
E12F024B	MOV		BE	**YES**	MNCR 95/0286	modify by 12/96
E12F027A	MOV		HL/BE	**YES**	PROCEDURE CHANGE	NONE
E12F027B	MOV		HL/BE	**YES**	PROCEDURE CHANGE	NONE
E12F028A	MOV		HL	**YES**	None - Acceptable	NONE
E12F028B	MOV		HL	**YES**	None - Acceptable	NONE
E12F049	MOV		HL	NO	N/A	NONE
E12F064A	MOV		HL/BE	**YES**	MNCR 95/0287	modify by 6/98
E12F064B	MOV		HL/BE	**YES**	MNCR 95/0287	modify by 6/98
E12F064C	MOV		HL	**YES**	None - Acceptable	NONE
E12F094	MOV		HL/BE	NO	N/A	NONE
E12F096	MOV		HL/BE	NO	N/A	NONE

VALVE NUMBER	TYPE	THERMAL BINDING	PRESSURE LOCKING	PRIORITY VALVE	ACTION TAKEN TO DATE	PLANNED ACTION
E12F394	MOV		HL/BE	NO	N/A	NONE
E22F012	MOV		HL	NO	N/A	NONE
E51F013	MOV		HL	**YES**	MNCR 95/0285	modify by 12/96
E51F031	MOV		BE	**YES**	MNCR 95/0285	modify by 12/96
E51F059	MOV		HL	NO	N/A	NONE
E51F063	MOV	X	BE	NO	N/A	NONE
E51F064	MOV	X		NO	N/A	NONE
E51F068	MOV	X		NO	N/A	NONE
E51F077	MOV	X		NO	N/A	NONE
G33F001	MOV	X	HL	NO	N/A	NONE
G33F004	MOV	X	HL	NO	N/A	NONE
G33F028	MOV		HL	NO	N/A	NONE
G33F034	MOV		HL	NO	N/A	NONE
G33F039	MOV	X	HL	NO	N/A	NONE
G33F040	MOV	X	HL	NO	N/A	NONE
G33F053	MOV	X	HL	NO	N/A	NONE
G33F054	MOV	X	HL	NO	N/A	NONE
G33F100	MOV	X	HL/BE	NO	N/A	NONE
G33F101	MOV	X	HL	NO	N/A	NONE
G33F106	MOV	X	HL/BE	NO	N/A	NONE
G33F250	MOV	X	HL/BE	NO	N/A	NONE
G33F251	MOV	X		NO	N/A	NONE
G33F252	MOV		BE	NO	N/A	NONE
G41F029	MOV		HL	NO	N/A	NONE
G41F044	MOV		HL	NO	N/A	NONE
P11F075	AOV		HL	NO	N/A	NONE
P41F064A	MOV		HL	**YES**	None - Acceptable	NONE
P41F064B	MOV		HL	**YES**	None - Acceptable	NONE
P41F081A	MOV		HL	**YES**	None - Acceptable	NONE
P41F081B	MOV		HL	**YES**	None - Acceptable	NONE

VALVE NUMBER	TYPE	THERMAL BINDING	PRESSURE LOCKING	PRIORITY VALVE	ACTION TAKEN TO DATE	PLANNED ACTION
P41F155A	MOV		HL	NO	N/A	NONE
P41F155B	MOV		HL	NO	N/A	NONE
P41F237	MOV		HL	**YES**	None - Acceptable	NONE
P41F238	MOV		HL	**YES**	None - Acceptable	NONE
P42F066	MOV		HL	NO	N/A	NONE
P42F067	MOV		HL	NO	N/A	NONE
P42F068	MOV		HL	NO	N/A	NONE
P42F117	MOV		HL	NO	N/A	NONE
P45F061	AOV		HL	NO	N/A	NONE
P45F062	AOV		HL	NO	N/A	NONE
P45F067	AOV		HL	NO	N/A	NONE
P45F068	AOV		HL	NO	N/A	NONE
P45F098	AOV		HL	NO	N/A	NONE
P45F099	AOV		HL	NO	N/A	NONE
P45F273	MOV		HL	NO	N/A	NONE
P45F274	MOV		HL	NO	N/A	NONE
P60F001	AOV		HL	NO	N/A	NONE
P60F003	AOV		HL	NO	N/A	NONE
P60F004	AOV		HL	NO	N/A	NONE
P71F148	AOV		HL	NO	N/A	NONE
P71F149	AOV		HL	NO	N/A	NONE
P71F150	AOV		HL	NO	N/A	NONE
P72F121	MOV		HL	NO	N/A	NONE
P72F122	MOV		HL	NO	N/A	NONE
P72F123	MOV		HL	NO	N/A	NONE

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
ENTERGY 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 180 Day Response 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

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 13th day of February, 1996.

(SEAL)

Elizabeth L. Lang

Notary Public

My commission expires:

December 28, 1999