



ENTERGY

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Vice President
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September 25, 1992

U.S. Nuclear Regulatory Commission
Mail Station P1-137
Washington, D.C. 20555

Attention: Document Control Desk

Subject: Grand Gulf Nuclear Station
Unit 1
Docket No. 50-416
License No. NPF-29
Response to Generic Letter 92-04; Resolution of the Issues
Related to Reactor Vessel Water Level Instrumentation in BWRs
Pursuant to 10CFR50.54(F)

GNRO-92/00126

Gentlemen:

On August 27, 1992, Entergy Operations, Inc. (EOI) received Generic Letter 92-04, Resolution of the Issues Related to Reactor Vessel Water Level Instrumentation in BWRs Pursuant to 10CFR50.54(F). The letter requires licensees to submit information regarding the potential for Reactor Vessel level indication errors due to the effects of noncondensable gasses in a rapid depressurization event and to confirm that the safety functions of their vessel level instrumentation are being met. The EOI response for Grand Gulf Nuclear Station (GGNS) is attached.

The attached response describes the impact of potential level indication errors on automatic safety system and operator responses. Operator response includes short and long term actions and operator actions prescribed in emergency operating procedures during and after all licensing basis accidents and transients. Short term actions taken to offset the impact of potential level indication errors are also described in the attached. Long term corrective actions by GGNS, which may include hardware modifications, will be in conjunction with the findings and conclusions of the BWR Owners Group.

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This information is being provided under affirmation pursuant to 10CFR50.54(f). Please advise if you require any additional information on this matter.

Yours truly,

W.F. COOK

WTC/CDH/ams

attachment: Response to NRC Generic Letter 92-04; Resolution of the Issues
Related to Reactor Vessel Level Instrumentation

cc: Mr. D. G. Hintz (w/a)
Mr. R. H. Bernhard (w/a)
Mr. R. B. McGehee (w/a)
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Washington, D.C. 20555

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, W. T. Cottle, 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 response to Generic Letter 92-04 for the Grand Gulf Nuclear Station; that I signed this response 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.

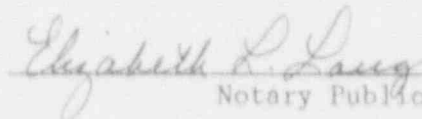


W. T. Cottle

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 25th day of September, 1992.

(SEAL)


Notary Public

My commission expires:

December 28, 1995

RESPONSE TO NRC GENERIC LETTER 92-04

Resolution of the Issues Related to Reactor Vessel Level Instrumentation

The following information represents the Grand Gulf Nuclear Station response to the specific Requested Actions in the Generic Letter for Grand Gulf Nuclear Station.

Requested Action 1

1. In light of potential errors resulting from the effects of non-condensable gas, each licensee should determine:
 - a. The impact of potential level indication errors on automatic safety system response during all licensing basis transients and accidents;
 - b. The impact of potential level indication errors on operator's short and long term actions taken after all licensing basis accidents and transients;
 - c. The impact of potential level indications errors on operator actions prescribed in emergency operating procedures or other affected procedures not covered in (b).

Response

- 1.a. The BWR Owners' Group (BWROG) provided to the NRC and each of the member utilities a report on BWR Reactor Vessel Water Level Instrumentation, Revision 1, August 28, 1992. This report addresses the safety impact of potential water level indication errors on automatic system response during all licensing basis transients and accidents. This analysis basis is contained in Section 6.0 Safety Analysis of the report and is summarized in Section 2.2 Plant Responses to Postulated Accident Scenarios. The information in the BWROG report is applicable to the design of Grand Gulf Nuclear Station; this conclusion is based on our documented review of the report and the evaluation made by General Electric as contained in Attachment 2 to the report. Grand Gulf Nuclear Station recognizes that there are differences between the designs of BWR plants and systems; however, our review of the report (including Attachment 2 conclusions) reinforces Grand Gulf Nuclear Station general understanding that the basic plant response to the design basis transients and accident events is sufficiently similar to obviate the need for additional plant unique detailed re-analysis. An evaluation of the applicability of the BWROG report to the GGNS design was performed.
- 1.b. The BWROG report addresses, in section 6.9 Operator Responses, the operator actions that could be anticipated in response to potential water level indication errors. In the short term the

report discusses in section 6.0 that the automatic safety actions will be performed as necessary. Additional guidance has been provided to the plant operations personnel as a result of the BWROG Emergency Procedures Committee (EPC) recommendation letter of August 19, 1992. Once available, this sensitizing guidance was provided to the operators as part of their shift turnover activities as they came back on duty. This was accomplished by enclosing copies of the letter in the Operations night orders. The interim guidance information has sensitized the operators to the possible concerns with accurate water level readings following a rapid depressurization while not necessitating a change to the existing long term guidance provided in the Emergency Operating Procedures (EOP).

- 1.c. As stated in section 6.9 of the report and the 1.b. response above the operators have adequate information in the present EOPs as augmented by the recent information communication from the EPC. This is reinforced by the BWROG letter of September 24, 1992, in response to NRC concerns in a letter dated September 9, 1992. The EPC is continuing to review the potential need for any additional guidance in the Emergency Procedure Guidelines (EPG) to further address the potential water level indication errors. Such review will take into account the information from the BWROG program of analysis and testing regarding this issue.

Requested Action 2

2. Based upon the results of (1), above, each licensee should notify the NRC of short term actions taken, such as:
- a. Periodic monitoring of level instrumentation system leakage; and,
 - b. Implementation of procedures and operator training to assure that potential level errors will not result in improper operator actions.

Response

2. Grand Gulf Nuclear Station has informed its operators of the information contained in the letter from the EPC. The existing information about the configuration of the cold leg water level instrumentation has been reviewed and additional verification of insulation integrity will take place at the next refueling outage. The available information has been provided to the BWROG to be factored into the test configurations in the BWROG program (provided to the NRC in the August 12, 1992 letter from the BWROG). The significance of different characteristics of the configuration of cold leg water level instrumentation will be better understood after the BWROG program test information is available.

Short term actions taken or planned include:

- Tracking reactor water level following scrams or during shutdowns to identify unusual responses.
- Continuing to perform channel checks on the reactor water level instrumentation.
- Information was provided to Plant Operators, I&C Technicians, and I&C Planners describing how any identified leaks on reactor water level instrumentation are significant and need to be documented and corrected in a timely manner.
- A lesson plan was developed concerning this phenomenon, and has been incorporated into Initial License Operator Training, and is currently scheduled to be incorporated into Licensed Operator Requalification Training in late 1992.

The response to l.b. discusses procedures and operator training to assure that potential level errors will not result in improper operator actions.

Requested Action 3

3. Each licensee should provide its plans and schedule for corrective actions, including any proposed hardware modifications necessary to ensure the level instrumentation system design is of high functional reliability for long term operation. Since this instrumentation plays an important role in plant safety and is required for both normal and accident conditions, the staff recommends that each utility implement its longer term actions to assure a level instrumentation system of high functional reliability at the first opportunity but prior to starting up after the next refueling outage commencing 3 months after the date of this letter.

Response

3. Grand Gulf Nuclear Station endorses the BWROG plans originally provided in BWROG letter to the NRC on August 12, 1992 (Reference a). Grand Gulf Nuclear Station also reaffirms support of the BWROG plan by endorsing the BWROG letter of September 24, 1992 (Reference b). Grand Gulf Nuclear Station facilities are scheduled to start their next refueling outage for Grand Gulf Nuclear Station in the fall of 1993. If the BWROG Program indicates that modifications are necessary to assure that the level instrumentation is of high functional reliability, such modification schedule will be provided to the NRC at that time.