GULF STATES UTILITIES COMPANY

RIVER BEND STATION POST OFFICE BOX 220 ST. FRANCISVILLE, LOUISIANA 70775

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September 6, 1985
RBG-22051
File Nos. G9.5, G9.20.8

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Denton:

River Bend Station - Unit 1
Docket No. 50-458

Gulf States Utilities Company (GSU) is providing the results of the River Bend Station (RBS) Seismic Quali ication Mini-Audit conducted by a third party during the period of May 20 through August 9, 1985. The audit was performed by Dr. K. M. Skreiner of Nutech Engineers. Dr. Skreiner's final audit report is provided herein.

The results of the RBS Seismic Qualification Mini-Audit support the conclusion that an adequate program has been implemented conforming to current Nuclear Regulatory Commission criteria and standards.

Sincerely,

J. E. Booker

J. E. Booker
Manager-Engineering,
Nuclear Fuels & Licensing
River Bend Nuclear Group

JEB/RJK/je

Attachments

B001
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REPORT ON THE GSU INTERNAL MINI-AUDIT OF SEISMIC QUALIFICATION

A River Bend Station mini-audit was performed during the period of May 20th to August 9th to review the Seismic Qualification Program. This was in response to a request by the NRC during the May 10, 1985 meeting with Gulf States Utilities in Bethesda. The equipment for the audit consisted of four (4) different items (2 BOP and 2 NSSS) selected as follows from the Low Pressure Coolant Injection and Standby Service Water Systems:

<u>BOP</u> (Standby Service Water System)

<u>Item 1</u>	1SWP*FN1	Fan
<u>Item 2</u>	1SWP*MOV502A	Motor Operated Valve

<u>NSSS</u> (Low Pressure Coolant Injection System)

<u>Item 3</u>	E12-N652C	Trip Unit
<u>Item 4</u>	E12-R603A	Meter

The procedures and criteria applied during this audit were designed to follow closely the methods employed by the NRC during their own Seismic Qualification Review Team (SQRT) Audits. An in-depth audit of the seismic and dynamic qualification documentation was performed to assess if it meets the current NRC criteria and the River Bend Station specific requirements. A walk down of the equipment was performed to assess its installed status and configuration, and to assess if this is in conformance with the qualified configuration of the equipment. As part of this audit a River Bend Station Seismic Qualification Mini-Audit Checklist was completed for the equipment items. This checklist was previously submitted to and approved by the NRC. It is similar to a checklist used for an independent technical assessment of the South Texas Project Electric Generating Station Equipment Qualification Program during 1984.

The audit was performed by Dr. K. M. Skreiner who has been involved in seismic qualification programs for over twelve (12) years and was the Vice Chairman of the Working Group responsible for the IEEE Seismic Qualification Standard, IEEE 344-1975.

The following attributes of the River Bend Station seismic qualification were reviewed during the mini-audit.

- o Evidence of adequate acceptance and control of seismic qualification documentation.

- Evidence that the seismic qualification documentation reflects the current status of equipment. Where the qualification documentation identifies a need for modifications, a statement indicating implementation of the modification or justification as to why it is not required must be included.

- Evidence to verify that equipment is installed in the manner it was qualified relative to its mounting, and to verify adequate clearances and interfaces to other equipment, systems or structures.

- Indications that equipment which has been modified to facilitate pre-operational testing was returned to the qualified condition.

- Identification that equipment is qualified to meet the requirements of IEEE 344-1975 as applicable.

AUDIT COMMENTS AND OBSERVATIONS

During this mini-audit the technical bases of the seismic and dynamic qualification was reviewed in considerable detail, and checks were made to establish that adequate documentation exists in the files of SWEC and GE. Today, vendors are performing more thorough qualification programs, technically conforming to current NRC criteria and standards such as IEEE 344-1975. The observations in this mini-audit are consistent with this statement. It was concluded the equipment is qualified.

The equipment was also walked-down to establish its installed condition. It was concluded the equipment is installed in conformance with the qualification documentation. Three observations were noted which reflect the status of equipment Items 3 and 4 as being in the pre-operational testing mode.

1. A reject tag was noted on each of Items 3 and 4. On a review of the documentation it was concluded that corrective action had already been implemented in each case.

2. Tamper proof bars over the set-point adjustments on many panels, including the panel carrying Item 3, were not installed because of pre-operational testing. The bars were temporarily stored on top of their respective cabinets. During a meeting it was pointed out that in the unlikely event of a seismic disturbance the stored bars could fall from the cabinet and in the process affect the function of a Class 1E equipment. GSU has issued instructions to store bars in a different manner, such as on the floor, to avoid this potential situation.

3. On the card file attaching Item 3 to the cabinet, it was observed one of six mounting screws was missing. A review of this observation has concluded that the mounting of the card file with five rather than six screws is acceptable considering the margins of 800% or greater comparing the RBS specific requirements with the test results. In addition, GSU has issued instructions to check for missing, or loose screws before returning equipment to service.

This concludes the general comments and observations.

SPECIFIC COMMENTS ON AUDITED EQUIPMENT

Item 1 1SWP*FN1 Fan

Qualification documentation was audited and the equipment was walked-down. The equipment is seismically qualified by dynamic analysis with margin. It is installed in conformance with applicable drawings. There are no interface or other proximity issues. It is, therefore, concluded this equipment is qualified.

Item 2 1SWP*MOV502A Motor Operated Valve

Qualification documentation was audited and the equipment was walked-down. The equipment is seismically and dynamaically qualified by combined methods of testing and analysis with margin. It is installed in conformance with applicable drawings. There are no interface or other proximity issues. It is, therefore, concluded this equipment is qualified.

Item 3 E12-N652C Trip Unit

Qualification documentation was audited and the equipment was walked-down. The equipment is seismically qualified with margin by testing employing multi-frequency, multi-axis excitation. It is installed in conformance with applicable documentation subject to the general observations and comments discussed above. There are no interface or other proximity issues. It is, therefore, concluded this equipment is qualified.

Item 4 E12-R603A Meter

Qualification documentation was audited and the equipment was walked-down. The equipment is seismically qualified with margin by combined methods of testing and analysis. Single frequency tests were employed at the maximum capability of the shaker. It

is installed in conformance with applicable documentation. There are no interface or other proximity issues. It is, therefore, concluded this equipment is qualified.

CONCLUSIONS

The results of the River Bend Station Seismic Qualification Mini-Audit support the conclusion that an adequate program has been implemented conforming to current NRC criteria and standards such as IEEE 344-1975.