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November 5, 1984
RBG- 19,359
File No. G9.5, G9.8.6.2,
G12.5.1

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

Enclosed is Gulf States Utilities Company's (GSU) response to River Bend Station (RBS) Safety Evaluation Report (SER) Open Item #4 - Inservice Test Program, and Open Item #6 - Preservice Inspection Program. The accompanying four volume set (3 volumes for the Preservice Inspection (PSI) Plan and 1 volume for the Pump and Valve Plan) will be updated as the plant design and construction is completed and revised when the preliminary information identified within is finalized.

Attachment 1 summarizes GSU responses to specific Staff requests contained in the SER while Attachment 2 responds to items identified in the letter from Mr. E. J. Weinkam, III to the Applicant regarding the May 1, 1984 meeting minutes concerning PSI/ISI programs.

Attachment 3 contains marked-up FSAR pages which will be incorporated in a future amendment.

Sincerely,

J. E. Booker

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

JEB/WJR/JWL/JBB/je

Attachments (2)

Enclosure (4 volumes)

B001
1/10 Sets
Limited Dist

Attachment 1

SER PSI - Related Items

I. 5.2.4.1 (pg. 5-8) and 6.3.3 (pg. 6-52)

Position: Submit a Preservice Inspection (PSI) program, identify plant-specific areas which cannot meet ASME Section XI requirements, and provide a supporting technical justification for requesting relief.

Response: The PSI Plan is a three volume set with Section 8.0 "Testing of Pumps and Valves" a separate one volume document titled the Pump and Valve Plan, all four of which are enclosed with this letter. No relief requests for the PSI Plan are presently requested; however, should any specific areas be identified where the ASME code requirements cannot be met, relief requests and technical justifications will be supplied to the Staff for their review and approval. The Pump and Valve Plan has identified five requests for relief for pumps (Appendix B) and 10 requests for relief for valves (Appendix D) at this time.

II. 5.2.4.3 (pg. 5-8/9)

Position: Provide the applicable code requirements for those systems and components which comprise the reactor coolant pressure boundary (RCPB). The plans for PSI examination of the reactor pressure vessel (RPV) should also address the degree and method of compliance with Regulatory Guide 1.150.

Response: Preservice inspection, examination and testing code requirements for those systems and components which comprise the RCPB are identified in Section 6 of the PSI plan while Section 9 of the plan discusses component supports. Further information on nondestructive examination (NDE) following the fabrication of the RCPB ferritic steel tubular components (Question #210.23) and austenitic stainless steel tubular components (Question #210.24) is provided in FSAR Sections 5.2.3.3.2.5 and 5.2.3.4.2.4, respectively. Regulatory Guide 1.150 is applicable for all PSI examination programs performed after January 15, 1982. Initial RPV PSI examination was conducted at the Chicago Bridge and Iron Nuclear Facilities in Memphis, TN. prior to January 15, 1982 and hence is exempt from the requirements of this Regulatory Guide. However, all remaining PSI examinations (which will be performed at RBS) and future ISI examinations will comply with Regulatory Guide 1.150 requirements (see Section 5.0 of the plan.) An FSAR compliance statement for Regulatory Guides 1.147 and 1.150 will be incorporated into Section 1.8 of the FSAR and supplied with the ISI plan in June 1985. Additional discussions regarding RPV volumetric examinations are provided in Section 10.1.3 of the PSI plan.

III. 6.6.3 (pg. 6-52)

Position: Provide the applicable code requirements for the Class 2 and 3 components.

Response: Preservice inspection, examination and testing code requirements for Class 2 and 3 systems and components are identified in Section 6 of the PSI plan while Section 9 of the plan discusses component supports.

SER IST - Related Items

I. 3.9.6 (pg. 3-41)

Position: Provide a commitment to 10CFR50.55a(g) for the preservice and inservice testing of ASME Class 1, 2, and 3 pumps and valves.

Response: The Pump and Valve Plan (1 volume document) commits to 10CFR50.55a in Section 1.0 while Section 2.0 discusses the Inservice Testing (IST) Program for pumps and Section 3.0 discusses IST for valves.

II. 3.9.6 (pg. 3-42)

Position: Discuss the leak rate test program for pressure isolation valves.

Response: Attachment 3 contains a revised FSAR Table 3.9A-15 listing pressure isolation valves. This revised table reflects the proposed Technical Specifications 3/4.4.3.2 (submitted July 17, 1984) which constitute the leak rate testing program for these pressure isolation valves.

Attachment 2

5/1/84 Meeting PSI-Related Items

I. Cover letter, paragraph 4

Position: Record ultrasonic indications at the 20% DAC level in austenitic stainless steel piping systems that are potentially susceptible to Inter-Granular Stress Corrosion Cracking (IGSCC).

Response: Ultrasonic indications will be performed at the 50% DAC level because all service sensitive piping has been replaced with low carbon steel piping that are not susceptible to IGSCC (see Section 6.2 of the PSI plan.)

II. Cover letter, paragraph 5

Position: Finalize arrangements to use a full-scale mockup for PSI examination, including ultrasonic testing (UT) and surface examination, of the inner radius of the feedwater nozzles.

Response: Gulf States Utilities Company (GSU) is purchasing a full-size feedwater nozzle assembly for use as a calibration block while Rockwell Corporation is under contract to develop an automated UT procedure. Finalized information for the inservice examinations will be supplied with the ISI Plan in June 1985 (also see Item III below.)

III. Cover letter, paragraph 5 and meeting summary, page 3, paragraph 1

Position: Perform the liquid penetrant and ultrasonic examinations described in paragraph 4.3.2.5 of NUREG-0619 for the feedwater spargers prior to installation.

Response: The NRC letter under discussion was received by GSU on August 3, 1984 which was after the installation of the feedwater spargers. There were no PSI examinations performed on the spargers prior to installation; however, with the thermal sleeve installed and sparger in place, a liquid penetrant test was satisfactorily performed on the blend radius region up to and beyond the tangent point. The results of this examination, when used with the calibrated, automated UT procedure during inservice inspection, will satisfactorily indicate any flaws or cracks in the feedwater nozzle over its design lifetime.

IV. Meeting summary, page 1, paragraph 2

Position: Recommendation to perform Induction Heating Stress Improvement (IHSI), even for "conforming" material.

Response: No plans currently exist for using IHSI as there is no service sensitive material in use at River Bend Station (RBS).

V. Meeting summary, Action Item A

Position: Submit a complete PSI Plan by October, 1984.

Response: The enclosed three volume PSI Plan and one volume Pump and Valve Plan provides the information requested in the letter as well as in the Safety Evaluation Report (SER). It should be noted, however, that some information contained in the plans is preliminary and will be updated as the plant design and construction is completed. Appendices A, F, and G (of the PSI Plan) are not included in this submittal, but shall be transmitted as data and drawings become available.

VI. Meeting summary, Action Item B

Position: The applicant should make a formal request to use the W-83 Addenda for selection of methods and the sample for preservice examination of Class 2 pipe welds.

Response: GSU has decided to use the 1976 Code with addenda through the Summer of 1975 per 10CFR50.55a(b)(2)(IV).

V. Meeting summary, Action Item C

Position: Provide a summary covering an evaluation of the reactor vessel examinations.

Response: See Section 5.0 and 10.1.3 of the PSI Plan.

VI. Meeting summary, Action Item D

Position: Review current plans to record ultrasonic indications at the 50% DAC level in systems susceptible to IGSCC.

Response: See Item I above and Section 6.2 of the PSI Plan.

VII. Meeting summary, Action Item E

Position: Review NUREG-0619 regarding special examinations for the feedwater nozzles.

Response: Although this action item specifies a Staff review, GSU has addressed this issue in responses to Items II and III above.

VIII. Meeting summary, Action Item F

Position: Describe any specific plans regarding procedure and personnel qualification for UT of service sensitive piping.

Response: All service sensitive material has been replaced at RBS; however, Section 4.0 of the PSI Plan discusses personnel qualifications and Section 10.2 discusses examination procedures for the PSI Plan.

IX. Meeting summary, page 2, paragraph 1 and page 3, paragraph 2.

Position: The UT procedures for piping and bolting were requested for information.

Response: Table 11-1 referenced in and following Section 10.2 identify some examination procedures. At present, this listing of procedures is not complete; however, complete copies of all procedures to be used for actual examinations of RBS Class 1, 2, and 3 items will be listed in a revision to the enclosed PSI Plan and available at the RBS site for inspection.

X. Meeting summary, page 2, paragraph 2

Position: Clearly distinguish the PSI and ISI documents.

Response: The three volume PSI Plan strictly deals with preservice examinations. As requested, the Pump & Valve Plan is supplied with this transmittal, but as a separate volume as it mainly deals with ISI. The complete ISI Plan will be submitted in June 1985.

XI. Meeting summary, page 3, paragraph 1

Position: Submit an evaluation of the reactor vessel examination results as compared to Regulatory Guide 1.150.

Response: See Attachment 1 of this transmittal, Item II, and Sections 5.0 and 10.1.3 of the PSI Plan.

XII. Meeting summary, page 3, paragraph 2

Position: Review NUREG-1061 and decide on appropriate action, if any.

Response: GSU will review NUREG-1061 when received and update the PSI and ISI Plans if necessary.

XIII. Meeting summary, page 4, paragraph 1

Position: The applicant will be performing the preservice examinations of supports after fuel loading and initial criticality as typical with other BWRs.

Response: GSU plans to perform hot functional examinations on snubbers after fuel load.

Attachment 3

TABLE 3.9A-15

PRESSURE ISOLATION VALVES UNDER ASME XI
INSERVICE TESTING PROGRAM

High Pressure Core Spray

1E22*AOVF005(JO)
1E22*MOVF004(JO)

Low Pressure Core Spray

1E21*AOVF006(JR)
1E21*MOVF005(JR)

Reactor Core Isolation Cooling

1E51*AOVF065(ZR)
1E51*MOVF013(ZR)

Residual Heat Removal

1E12*AOVF041A(AR)
1E12*AOVF041B(BB)
1E12*AOVF041C(ZB)
1E12*MOVF042A(AR)
1E12*MOVF042B(BB)
1E12*MOVF042C(ZB)
1E12*MOVF023(ZR)
1E12*MOVF008(ZR)
1E12*MOVF009(ZB)
1RHS*V240