

GULF STATES UTILITIES COMPANY

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July 29, 1980

RBG - 8180

File No. G15.4.1, C9.5

Mr. W. C. Seidle, Chief
Reactor Construction & Engineering
Support Branch
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 1000
Arlington, TX 76011

Dear Mr. Seidle:

RIVER BEND STATION - UNIT 1
REFER TO: RIV
DOCKET NO. 50-458/RPT. 80-05

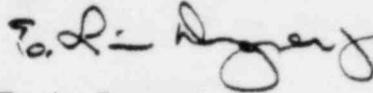
In your July 10, 1980, letter you indicated that certain activities conducted at the River Bend site were not in compliance with our QA program or our commitments made to the Commission. Attached to this letter are Gulf States Utilities Company's responses to the Notice of Violation pursuant to 10CFR 2.201 and to the Notice of Deviation.

In response to your concern regarding the effectiveness of the management control program for control of the gradation noncompliances, we submit the following. Gradation tests are run on a daily basis and are required to meet ASTM C-33. E&DCR C-398 provides that if one gradation test falls outside the ASTM C-33 range and when averaged with the preceding nine tests produces an average which is within the C-33 requirements, then the individual test may be accepted. If the average does not remain within the C-33 requirements, then no subsequent material may be used until the average is restored to the acceptable range. This means that if the average is out of range, concrete will not be placed until it is restored. On a daily basis, since tests are run on samples gathered from the conveyor belt as material is loaded for use, individual tests may not pass and material can be used in placing concrete. However, the average is monitored by FQC and trends identified for correction by construction. The purpose of the C-33 tests are, in fact, for monitoring and control of the process which produces the aggregate as well as the acceptability of the aggregate for use. Adverse trends will be corrected before the average becomes unacceptable and, failing that, concrete will not be placed until the average is restored to the acceptable range.

Based on the previous description of our program, we submit that it is adequate to prevent any aggregate with an average failing gradation from being placed.

We trust this letter satisfactorily answers the concerns raised in your report. We shall be glad to discuss any further points that you may have.

Sincerely,

A handwritten signature in cursive script, appearing to read "E. L. Draper".

E. L. Draper
Vice President - Technology

ELD/JEB/WJR/do

Attachments (2)

ATTACHMENT I - RESPONSE TO NOTICE OF NONCOMPLIANCE

A. Failure to Follow Procedures for the Certification of Field Quality Control (FQC) Inspection Personnel

Criterion V of Appendix B to 10 CFR 50 requires that activities affecting quality shall be prescribed by documented procedures of a type appropriate to the circumstances, and shall be accomplished in accordance with these procedures.

The Stone & Webster Procedure, QAD-2.5, Revision C, "Qualification and Certification of Personnel Performing Quality Assurance Activities", requires, in Section 4.2.5, a certificate of qualification for each individual who verifies conformance of work activities affecting quality. Each certificate shall include the activity in which the individual is qualified to perform.

Contrary to the above:

On May 28, 1980, during a review of certificates of qualification of approximately forty FQC inspectors, the IE inspector discovered that all of the individuals were certified to a specific level of capability within a specific function (inspection, examination, and/or test); however, the specific activity or task for which certified was not included in any of the certificates of qualification reviewed as required by the Procedure QAD-2.5, Revision C.

This is an infraction.

GSU RESPONSE TO INFRACTION A

Action taken and results achieved:

Individuals performing inspection activities were qualified and only allowed to inspect in specific activities or perform those tasks for which they were qualified. However, as stated in your report, the certificates did not reflect the specific qualification. Certificates for all personnel (FQC) have been issued to comply with the procedural requirements.

Corrective action taken to prevent further noncompliance:

Subsequent to NRC inspection, S&W has revised QCI FRI-D2.5-010, "Indoctrination and Training of Field Quality Control Personnel" to require certificates of qualification to be issued on site reflecting the specific activity or task for which certified.

Date when full compliance will be achieved:

In Compliance

B. Failure to Follow Site Procedures for Utilization of Qualified Inspection Personnel for the Performance of Site Inspection Activities

Criterion V of Appendix B to 10 CFR 50 requires that activities affecting quality shall be prescribed by documented procedures and instructions of a type appropriate to the circumstances, and shall be accomplished in accordance with these procedures.

1. The Stone & Webster Procedure QCI-FRI-D.2.5-010, "Indoctrination and Training of Field Quality Control Personnel," specifically restricts, in Section 6.0, the use of personnel with lower levels of capability from performing activities in the higher levels of capability.
2. The Stone & Webster Procedure QAD-2.5, Revision C, "Qualification and Certification of Personnel Performing Quality Assurance Activities," in Section 4.2, requires trainee personnel to work under the supervision of higher level personnel.
3. The above Procedure QAD-2.5, Revision C, in Section 4.3, further states that only personnel qualified at a Level II capability or at a Level III capability shall be considered capable of supervising or maintaining surveillance of personnel. In addition, Section II of the inspection handbook, "Inspection Report System," requires that the reviewer should be an inspector other than the originating inspector, but at the same or higher level.

Contrary to the above:

On May 29, 1980, during a review of inspection reports, the IE inspector discovered the following:

1. Review of concrete aggregate tests performed by the site FQC lab from January to March 1980 revealed that fifteen tests were performed by technicians (trainees) rather than by Level I or by Level II inspectors. The test results were subsequently reviewed by technicians rather than by Level I or by Level II inspectors.
2. Review of concrete aggregate tests and compressive strength tests of concrete cylinders performed by the site FQC lab from January through March 1980 revealed that seven inspection reports were completed by technicians. The reports showed no evidence of any subsequent supervisory review, or that the tests were performed under the supervision of higher personnel.
3. Review of concrete aggregate tests performed by the site FQC lab from January to March 1980 identified that six tests were performed by Level II inspection personnel; however, the test results were subsequently reviewed by technicians, not by inspectors at the same or higher level than the inspector performing the test.

This is an infraction.

GSU RESPONSE TO INFRACTION B (B.1) (B.2) (B.3)

Action taken and results achieved:

B.1, B.2, and B.3

A review is being performed on all FQC Lab Inspection/Test Reports (IR) now on file. This review will be conducted to assure that a Level II or higher individual has reviewed the report and signed the IR.

B.2

Although the reports provide no evidence of supervisory review or supervision by higher level personnel, the FQC Lab is staffed on a day to day basis by Level II and higher personnel responsible for the daily activities of the Level I and lower certified personnel.

Corrective Action taken to prevent further noncompliance:

A memorandum to all Field Quality Control Personnel has been issued, (dated June 27, 1980) which states in part:

1. All Test Reports and Inspection Reports initiated by an Assistant Technician, Technician, Trainee and Level I shall be reviewed and co-signed by a Level II or Level III individual.
2. Co-signing should be done immediately upon completion of the Inspection Report.
3. All Level II and III individuals who co-sign Test Reports or Inspection Reports are responsible for assuring the inspection results are in compliance with established acceptance criteria.

A Quality Control Instruction (QCI) will be generated to address 1, 2, and 3 above.

Date when full compliance will be achieved:

Review of all FQC Lab IR's/Test Reports will be completed by August 1, 1980.

The QCI will be issued by September 1, 1980.

C. Failure to Meet Specification Requirements for the Qualification of No. 67 and No. 8 Coarse Aggregates

Criterion V of Appendix B to 10 CFR 50 requires that activities affecting quality shall be prescribed by documented procedures and instructions. These procedures and instructions should include appropriate quantitative or qualitative acceptance criteria for determining that important activities have been satisfactorily accomplished.

1. Stone & Webster Construction Specification 210.361, "Concrete Testing Services," requires that coarse aggregates be tested for compliance with ASTM C33, "Standard Specification for Concrete Aggregates." This includes testing the coarse aggregate in accordance with ASTM C117, "Standard Test Method for Materials Finer Than No. 200 (75- μ m) Sieve in Mineral Aggregates By Washing." ASTM C33, in Table 3, "Limits for Deleterious Substances and Physical Property Requirements For Coarse Aggregates in Concrete," establishes the maximum limit for material finer than No. 200 sieve as 1.0%.
2. Stone & Webster Construction Specification 210.350, "Specification for Mixing and Delivering Concrete," requires that coarse aggregates have a minimum specific gravity of 2.5 in a saturated-surface-dry condition. This requires that the aggregates be tested in accordance with ASTM C127, "Standard Test Method for Specific Gravity and Absorption of Coarse Aggregate." In addition, this specification requires that the concrete weigh at least 135 pounds per cubic foot (pcf).

Contrary to the above:

On June 4, 1980, the IE inspector discovered, during a review of N&D No. 9400 and N&D No. 9421 for the prequalification tests of No. 67 coarse aggregate and No. 8 coarse aggregate, the following:

1. For No. 67 coarse aggregate, the ASTM C117 test results for material finer than No. 200 sieve was reported as 1.8%. This exceeded the maximum limit of 1.0%.
2. For both the No. 67 coarse aggregate and the No. 8 coarse aggregate, the ASTM C127 test results indicated specific gravities of 2.48 and 2.49, respectively. This was less than the specified 2.5. Tests were performed with trial mixes to verify the minimum concrete density of 135 pcf could be attained with these specific gravities; however, no data were available indicating that the minimum concrete density obtained with actual mixes used in Category I placements at the site was at least 135 pcf.

This is an infraction.

GSU RESPONSE TO INFRACTION C.1

Action taken and results achieved:

N&D 9400 has been superseded by N&D 9701 wherein clarification is provided in the technical justification for acceptance of the nonconforming material. The deviation from gradation requirements for No. 67 coarse aggregate for material finer than No. 200 sieve, was accepted based on results from gradation tests (attached to N&D 9701) performed by Stone & Webster FQC at the jobsite. The tests were performed prior to use of the material in production concrete and results complied with the gradation requirements specified.

Corrective action taken to prevent further noncompliance:

No additional corrective action required.

Date when full compliance will be achieved:

In compliance.

GSU RESPONSE TO INFRACTION C.2

Action taken and results achieved:

Air dry weight tests have been completed by Stone & Webster FQC on Mix "C" containing Bayou Sara No. 67 coarse aggregate and Mix "G" containing Bayou Sara No. 8 coarse aggregate. The tests produced air dry unit weights of 143.7 pcf for Mix "C", and 143.1 for pcf for Mix "G".

Corrective Action taken to prevent further noncompliance:

An E&DCR has been generated requiring Stone & Webster to perform air dry unit weight tests on all actual mixes used in Category I concrete placements.

Date when full compliance will be achieved:

GSU will have air dry unit weight tests on all actual mixes used in Category I concrete placements by September 1, 1980.

ATTACHMENT II - RESPONSE TO NOTICE OF DEVIATION

A. Qualification of Individuals at Level II QC Inspectors Who Do Not Meet the ANSI N45.2.6 Experience Qualifications For A Level II Capability

The "QA Program Manual for the River Bend Nuclear Station Units 1 and 2" requires that the quality assurance program correspond to the guidance set forth in "WASH 1283, Division 1, dated May 24, 1974." This QA program manual is required by Section 17.1.2.2b of the River Bend PSAR.

"WASH 1283" implements the requirements established in ANSI N45.2.6. These requirements include the work experience criteria for individual inspector qualification to each inspection level. For a Level II inspector, the work experience requirements range from two years for an individual with a college degree to four years for an individual with a high school degree.

Contrary to the above:

Stone & Webster Procedure QAD-2.5, Revision C, "Qualification and Certification of Personnel Performing Quality Assurance Activities," in attachment 3.2, allows that after one year of satisfactory performance at a Level I, inspection personnel may be qualified as Level II quality control inspectors. During a review of personnel qualification records for fifteen Level II inspectors, five FQC inspectors were hired at the Level II position who could not meet the experience requirements established in the ANSI N45.2.6-1973 standard.

Thus, Procedure QAD-2.5, Revision C and the past personnel hiring practices appear to deviate from the ANSI N45.2.6-1973 requirements in that approved hiring practices have permitted hiring of personnel with insufficient work experience for the certified level of inspection capability.

This is a deviation.

GSU RESPONSE TO DEVIATION A

Action taken and results achieved:

SWEC Quality Control Instruction (QCI), FRI-D2.5-010 was revised on July 22, 1980. This action will prevent the certification of new hires with insufficient work experience.

A review was also conducted of all FQC qualification records to insure compliance to the revised procedure. The results of the review are as follows:

16 individuals required additional justification for their current level of certification.

5 individuals were down-graded commensurate with the revised procedure criteria.

7 individuals are presently pending completion of the Training and Qualification program.

Corrective Action taken to prevent further deviation:

The subject QCI was revised and will be followed on all future hires.

Date when full compliance will be achieved:

In compliance.

B. Performance Of QC Inspection Activity Reviews By Inspection Personnel Not In Accordance With The ANSI N45.2.6 Requirements

The "QA Program Manual for the River Bend Nuclear Station Units 1 and 2" requires that the quality assurance program correspond to the guidance set forth in "WASH 1283, Division 1, dated May 24, 1974." This QA Program manual is required by Section 17.1.2.2b of the River Bend PSAR.

"WASH 1283" implements the requirements established in ANSI N45.2.6. Table 1 of this standard, "Minimum Levels of Capability for Project Functions," requires that at least a Level II individual both evaluate inspection and test results and report inspection and test reports.

Contrary to the above:

Section II of the inspection system handbook, "Inspection Report System," states that the "reviewer is other than the originating inspector and is of the same or higher level." This procedure appears to deviate from the ANSI N45.2.6-1973 requirement requiring at least a Level II individual to review and report inspection results. A random inspection of forty-five inspection reports revealed that sixteen had been reviewed by less than a Level II inspector.

This is a deviation.

GSU RESPONSE TO DEVIATION B

Action taken and results achieved:

Refer to Infraction B, Attachment 1

We agree that a Level I inspector is not authorized to perform the review of Test Lab Reports. This function within the ANSI Standard is limited to Level II or higher.

A memo has been issued and all future reviews require approval by at least a Level II individual. All FQC Lab Reports are being reviewed to assure the IR has been signed off by at least a Level II individual.

Corrective Action taken to prevent further deviation:

The Inspection System Handbook will be revised or a QCI will be written requiring review by at least a Level II individual.

Date when full compliance will be achieved:

September 1, 1980.