



KANSAS GAS AND ELECTRIC COMPANY

GLENN L. KOESTER  
VICE PRESIDENT - NUCLEAR

May 30, 1985

Mr. J.M. Taylor, Director  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

KMLNRC 85-142

Re: Docket No. STN 50-482

Ref: 1) Letter dated 5/8/85 from RDMartin, NRC,  
to GIKoester, KG&E  
2) KMLNRC 84-227 dated 12/11/84  
from GIKoester, KG&E, to RDMartin, NRC  
3) KMLNRC 84-240 dated 12/31/84  
from GIKoester, KG&E, to RDMartin, NRC  
4) KMLNRC 85-014 dated 1/10/85  
from GIKoester, KG&E, to RDMartin, NRC  
5) Letter dated 1/18/85 from RPDenise, NRC,  
to GIKoester, KG&E  
6) KMLNRC 85-044 dated 2/5/85  
from GIKoester, KG&E, to RPDenise, NRC

Subj: Enforcement Action 85-27

Dear Mr. Taylor:

Enclosed is Kansas Gas and Electric Company's (KG&E) response to Item I (Violation IA, IB, IC, and ID) as documented in Reference 1. Pursuant to 10CFR2.201, the following five items are addressed for the alleged violation:

1. Admission or denial of the alleged violation;
2. The reason for the violation, if admitted;
3. The corrective steps that have been taken and the results achieved;
4. The corrective steps that will be taken to avoid further violations; and
5. The date when full compliance will be achieved.

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Mr. J.M. Taylor  
KMLNRC 85-142

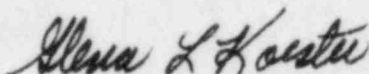
May 30, 1985

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KG&E's response to Item II.C (Violation Not Assessed a Civil Penalty) will be transmitted by separate cover on or before June 7, 1985. The Notice of Reference 1 provides that no response to Items II.A and II.B is required.

Please contact me or Mr. Otto Maynard of my staff if you have any questions concerning KG&E's response to the alleged violation.

Yours very truly,



Glenn L. Koester  
Vice President - Nuclear

GLK:dab

Enclosure

xc: PO'Connor (2)  
JCummins  
RDMartin

STATE OF KANSAS )  
 ) SS  
CITY OF WICHITA )

Glenn L. Koester, of lawful age, being first duly sworn upon oath says that he is Vice President - Nuclear and an Officer of Kansas Gas and Electric Company; that he has read the foregoing document and knows the content thereof; that he has executed that same for and on behalf of said Company with full power and authority to do so; and that the facts therein stated are true and correct to the best of his knowledge, information and belief.

By Glenn L. Koester  
Glenn L. Koester  
Vice President - Nuclear

SUBSCRIBED and sworn to before me this 30 day of May, 1985.

Cynthia L. Damm  
Notary Public

Expiration Date 11/15/87



Violation Assessed a Civil Penalty

A. Statement of Alleged Violation

I. Violations Assessed a Civil Penalty

10 CFR Part 50, Appendix B, Criterion XI requires that a test program be established to assure that testing required to demonstrate that the structures, systems, and components perform satisfactorily in service is identified and performed in accordance with written test procedures which incorporate the requirements and acceptance limits contained in applicable design documents. The test program is to include, as appropriate, proof test prior to installation, preoperational tests, and operational tests during nuclear power plant or fuel reprocessing plant operation, of structures, systems, and components. Test procedures are to include provisions for assuring that all prerequisites for the given test have been met, that adequate test instrumentation is available and used, and that the test is performed under suitable environmental conditions. Test results are to be documented and evaluated to assure that test requirements have been satisfied.

Section 17.2. of the Wolf Creek Addendum to the SNUPPS FSAR, "Quality Assurance During the Operation Phase," requires that testing be performed to demonstrate that structures, systems, and components perform satisfactorily in service. The test program includes preoperational tests, initial startup tests, surveillance those associated with plant maintenance, modification, procedure changes, failure analysis, and the acceptance of purchased material.

Test programs are to be established by the Director, Nuclear Operations to assure that testing demonstrates item or system performance. Testing is to be performed in accordance with written procedures which incorporate or reference the requirements and acceptance limits contained in applicable Technical Specifications, drawings, instructions, procurement documents, specifications, codes, standards, and regulatory requirements. Test program procedures control when a test is required and how it is to be performed.

Test administrative procedures, test procedures, and checklists employed during tests are to include, as applicable, prerequisite conditions; material and test equipment requirements; mandatory hold points; testing method instructions; limiting conditions and acceptance/rejection criteria; data collection method; and test result approval requirements. Test results are to be documented, reviewed, and approved by qualified individuals or groups.

Contrary to the above, at the time of the NRC inspection, the Kansas Gas and Electric Company had not established and executed an adequate preoperational test program which would have demonstrated that structures, systems, and components would perform satisfactorily in service. The following are examples of failures to adequately establish or implement the above program:

- A. Verification of design safety features was not performed as Preoperational Test Procedures SU3-AE01, "Main Feedwater System," SU3-AB04, "Main Steam System," and SU3-NF01, "Load Shedding and Load Sequencer," did not include provisions to verify that safety system actuation signals would override test signals for certain components, as required by design and as specified in Sections 14.2.12.1.5, 14.2.12.1.3, and 14.2.12.1.63 of the Wolf Creek FSAR.
- B. Test Procedures SU3-NF01, "LOCA Sequencer," and SU3-NF03, "Shutdown Sequencer," failed to demonstrate component performance under limiting accident conditions.
- C. Neither the use of proper testing equipment nor the use of proper testing methods was ensured in that: (1) a pressure gauge of improper range was used to measure the performance of Residual Heat Removal System pumps in test SU3-EJ01, "Residual Heat Removal System", (2) a procedure SU3-NE01, "Diesel Generator Electrical," did not specify adequate conditions for test performance in accordance with FSAR Section B.1.4.3, and (3) the test program did not specify adequate testing of the failure mode of air operated valves.



- D. Preoperational Test Procedure SU3-NK01, "125 VDC Class 1E Electrical System," did not incorporate a commitment from FSAR Section 8.3.2.2.1 to measure safety-related battery room hydrogen concentration during battery operation.

This is a Severity Level III Violation (Supplement II). Civil Penalty - \$25,000.

B. Reply

1. Admission or Denial of Alleged Violation

The above quoted violation asserts that Kansas Gas and Electric Company ("KG&E"), as of the time of the inspection, "had not established and executed an adequate preoperational test program which would have demonstrated that structures, systems, and components would perform satisfactorily in service". KG&E does not dispute that certain weaknesses existed in the Preoperational Test Program ("the Program") for Wolf Creek Generating Station, Unit 1. Those problems are set forth and discussed in Reference 2.

The above quoted violation also asserts that specific deficiencies in the Program were identified in four areas: failure to provide verification of design safety features (Violation IA); failure to demonstrate component performance during limiting accident conditions (Violation IB); failure to ensure the use of proper testing methods and proper equipment (Violation IC), and failure to verify a design document commitment (Violation ID). These specific instances were first identified in Inspection Report STN 50-482/84-43 ("IR 84-43") (Reference 5) as, respectively, items 84-43-09, 84-43-12, 84-43-11, and 84-43-10. In its response to IR 84-43 (Reference 6), KG&E acknowledged that the identified deficiencies had occurred.

2. Reasons for Violation

The description of the causal factors or "root causes" of the weaknesses in the Program are described in Reference 2. The reasons for the specific deficiencies in the Program are described in Reference 6.

3. Corrective Steps Which Have Been Taken And The Results Achieved

The steps which KG&E proposed to take to remedy the weaknesses in the Program consisted of several action items listed in Reference 2. The implementation of these action items is described in References 2, 3, and 4. An assessment of KG&E's implementation of these action items by an NRC inspection team is contained in Inspection Report STN 50-482/85-11. See Reference 1. The NRC team concluded that "[t]he committed-to-corrective actions were implemented as stated with one minor exception which did not compromise the overall effectiveness of the corrective action program. The actions implemented resolved the weaknesses identified and provided the needed level of assurance relative to the technical adequacy of the preoperational test program."

The steps which KG&E has taken to correct the specific deficiencies in the Program, and the results of these corrective actions, are described in Reference 6.

4. Corrective Steps Which Will Be Taken To Avoid Further Violations

Corrective steps which KG&E has taken to prevent recurrence of the identified weaknesses in the Program are described in Reference 2. The corrective steps taken to prevent recurrence of the specific deficiencies in the Program are described in Reference 6.

5. Date When Full Compliance Will Be Achieved

The corrective steps which KG&E proposed to take to correct the identified weaknesses in the Program and to prevent their recurrence have been fully implemented. See References 2, 3, and 4.

The corrective steps which KG&E proposed to take to correct the specific deficiencies in the Program, and to prevent their recurrence, have also been fully implemented. See Reference 6.

C. Actions Taken to Prevent Occurrence of Violations During Power Ascension and Operation

During an enforcement conference held on December 4, 1984 between NRC personnel and senior KG&E management personnel, the NRC noted that adequate assurances would have to be provided that the weaknesses identified during preoperational testing would not reoccur during the power ascension testing program or during routine plant operations.

KG&E has taken a number of steps to ensure that the problems identified during preoperational testing do not reoccur during power ascension testing the routine operations. In addition to the actions outlined in Reference 2, KG&E has established a realistic schedule for power ascension tests. It has involved management intimately in the scheduled test activities, and improved communications at all levels of test personnel and management. KG&E has developed a comprehensive power ascension program and procedures. Other actions taken by KG&E are summarized in NRC Inspection Report STN 50-482/85-11, p. 17-18.

An "interim assessment" report on the Power Ascension Test Program was performed by members of KG&E's Quality Assurance Organization. It concluded that the major factors that led to the weaknesses observed during preoperational testing are not present in the power ascension test program. Likewise, the NRC team that conducted the 85-11 inspection concluded that "management is taking action to properly conduct the test program and has integrated the lessons from the preoperational test program into the power ascension program."

Based on the above facts, and other follow-up activities and observations, KG&E has determined that effective actions have been taken to assure that the power ascension test program, and routine plant operations, are not subject to the weaknesses identified during preoperational testing.



D. References

1. Letter dated May 8, 1985 from RDMartin (NRC) to GLKoester (KG&E) enclosing Notice of Violation and Proposed Imposition of Civil Penalty and NRC Inspection Report Nos. 50-482/84-57 and 50-482/85-11.
2. Letter (KMLNRC 84-227) dated December 11, 1984 from GLKoester (KG&E) to RDMartin (NRC), and enclosures.
3. Letter (KMLNRC 84-240) dated December 31, 1984 from GLKoester (KG&E) to RDMartin (NRC), and enclosures.
4. Letter (KMLNRC 85-014) dated January 10, 1985 from GLKoester (KG&E) to RDMartin (NRC), and enclosures.
5. Letter dated January 18, 1985, from RPDenise (NRC) to GLKoester (KG&E), enclosing Inspection Report STN 50-482/84-43.
6. Letter (KMLNRC 85-044) dated February 5, 1985 from GLKoester (KG&E) to RPDenise (NRC), and enclosures.