APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-482/84-20 Construction Permit: CPPR-147

Docket: 50-482 Category: A2

Licensee: Kansas Gas and Electric Company
P. O. 208
Wichita, Kansas 67201

Facility Name: Wolf Creek Generating Station

Inspection At: Wolf Creek Site, Coffey County, Kansas

Inspection Conducted: July 23-27 and August 6-10, 1984

Inspectors: R. Smith 8-31-84
R. Smith, Team Leader, Wolf Creek Task Force Date

for B. Breslau, Reactor Inspector, Wolf Creek Task Force — Date 9/12/84

Approved: L. E. Martin — Date 9/12/84
L. Martin, Chief, Wolf Creek Task Force

Inspection Summary

Inspection Conducted July 23-27, August 6-10, 1984 (Report 50-482/84-20)

Areas Inspected: Routine, unannounced inspection of preoperational testing. The inspection involved 100 inspector-hours onsite by two NRC inspectors.

Results: Within the three areas inspected, one violation was identified (failure to follow administrative procedures as related to control of preoperational testing).

DETAILS

1. Persons Contacted

Kansas Gas and Electric Company (KG&E)

*F. T. Rhodes, Plant Manager
*M. G. Williams, Superintendent of Regulatory, Quality, and Administrative Services
*O. Maynard, Supervisor, Licensing
*H. K. Chernoff, Licensing
*A. N. DeCesaro, Licensing
*F. D. McLavrin, Assistant Startup Manager
*W. M. Lindsay, Supervisor, Quality Systems
*C. G. Patrick, Supervisor, Quality Evaluations
*K. R. Ellison, Supervisor, Startup Technical Support
*R. M. Stombaugh, Supervisor, Quality Assurance (QA) Audits
*C. J. Hoch, Technician
*C. J. Steinert, QA Technician
R. M. Grant, Director, Quality
R. L. Hoyt, Emergency Planning Supervisor
F. Duddy, Project Director

The NRC inspectors also contacted other site personnel including plant operators, startup engineers, test engineers, administrative and clerical personnel.

*Denotes those attending the exit interview.

2. Plant Status

The Wolf Creek plant is presently in the preoperational testing phase. The primary plant is filled and vented in preparation for start of the normal temperature and pressure parts of the hot functional test. The KG&E fuel load forecast is presently November 1, 1984.

The licensee considers that the startup effort is 92.5 percent complete with the remaining work being:

Preoperational testing	3.2 percent
Component testing	1.4 percent
Flush and hydrostic testing	0.7 percent
Turnover	0.2 percent
Procedures	0.3 percent
Transfer	1.7 percent

System jurisdiction is as follows:

Construction	3.3 percent
Startup	53.6 percent
Operation	43.1 percent

3. Pre-Operational Test Procedure Review

During this inspection the NRC inspectors reviewed the preoperational test procedures.

SU3-BB05 Reactor Coolant System Hot Preoperational Test
SU3-AB01A Main Steam Safety Valve Pneumatic Test
SU8-SR01 Incore Neutron Monitoring
SU3-BB04 Pressurizer Pressure Control
SU3-AB03 Main Steam Isolation Valve Test
SU3-AB04 Main Steam System Preoperational Test

The listed preoperational test procedures were reviewed to ensure the contents were in accordance with Regulatory Guide 1.68 and the licensee's administrative procedures. The procedures were reviewed to verify the following:

Were the documents controlled by title revision, approval, page numbers, and correct as to indices.

Were the procedures organized to include objectives, scope prerequisite precautions, conditions, tools, instruments, and quality control witness requirements.

Were the procedures written to include clear, concise directions and were the procedures written to technically accomplish the objectives.

Were acceptance criteria included and were these criteria at least the same as the final safety analysis report.

Within the areas examined the NRC inspectors found the procedures adequate except as listed in the unresolved item (50-482/8420-02).

During a review of the above test procedures it was noted that the actual plant conditions and the methods of attaining these conditions for performing the test steps were not provided with clear definition. FSAR Section 3, Appendix A, requires the preoperation test program to be accomplished, per Regulatory Guide 1.68, "Initial Test Program for Water-Cooled Nuclear Power Plants." This item is considered unresolved until additional test procedures are reviewed (50-482/8420-02).

4. Test Results Review

The test results review was to verify that Preoperational Test SU3-BB11 had been performed as required by Regulatory Guide 1.68 and applicable sections of the FSAR and as required by the licensee's administrative procedures. Also this review was to evaluate the adequacy of the licensee's administrative procedures.

During this review the NRC inspectors verified that the licensee had evaluated the test results and had determined that SU3-BB11 was a successful reactor coolant system hydrostatic test.

Within the areas inspected in this procedure the results were found acceptable except for unresolved item listed below.

The NRC inspectors reviewed the documentation of completed preoperation test SU3-BB11, "Primary System Hydrostatic Test." During this review it was noted that the design pressure had been changed from 2485 psig to 2800 psig. The plant was hydrostatically tested to 3106 psig (125 percent of 2485 psig). The plant pressure was reduced to 2800 psig instead of 2485 as required by Section III of the ASME Code. The reason for this change per the licensee was one section of piping at the discharge of the charging pump to the regenerative heat exchanger has a design pressure of 2800 psig. This change is unresolved until further information or resolution is provided by the licensee (482/8420-03). It appears that the design pressure of the primary system should have been specified as 2485 in accordance with the FSAR.

5. Pre-Operational Test Witnessing

Prior to witnessing of the test, the NRC inspectors performed a review of the test procedure. The review was conducted to verify that:

The procedure provided a clear statement which specified the function it was to perform.

The acceptance criteria were clearly stated and addressed the appropriate requirements.

The communications between all persons concerned with the test were addressed.

The procedure contained appropriate quality control witness points.

There were provisions for verification of actions performed with appropriate sign offs provided for assurance of procedure step performance.

The performance of the procedures would, when completed, assure that the acceptance criteria were met.

The procedures were clearly written, properly reviewed and approved in accordance with the licensee's administrative procedures.

The NRC inspectors then observed the licensee's performance of the test. After verifying that the correct revision of the test procedure was in use, the NRC inspectors verified, during the test performance, that:

There were sufficient personnel to perform the test.

The test steps were performed in the proper sequence to yield valid results.

That paper documentation of test problems, procedure changes, and test stoppages were documented as required by ADM 14-200.

The following tests were observed in part:

SU3-BG05 Boric Acid Blending Test

SU3-AB03 Main Steam Isolation Valve Test

SU3-BB05 Reactor Coolant System Hot Preoperational Test

SU3-BG04 Letdown System Preoperational Test

SU3-BG03 Charging System Preoperational Test

SU3-EJ01 Residual Heat Removal Cold Preoperational Test

SU3-EM02 Safety Injection Flow Verification

SU3-NG01 480V Class 1E System Preoperational Test

During witnessing of SU3-BG03, the NRC inspectors noted that the licensee did not comply with WCGS Administrative Procedure ADM 14-200, Revision 6, paragraph 4.3.2.2, in that step 7.2.1 of Preoperational Test Procedure SU3-BG03 was not properly followed. Test personnel performed steps not required by procedure step 7.2.1, i.e., the test personnel checked the closed/open stroke timing and performed the fail safe test. The results were recorded in Appendix F. Test personnel then realized timed stroke measurements were required under the dynamic conditions section of the test. The test personnel lined through the entries and recorded fail safe test data in test failed column of the data sheet.

Test Change Notice 004 (TCN-004) for preoperational test SU3-BG03 was not logged in TCN log as required per ADM 14-200, Revision 6, paragraph 4.6.1.

Test Descrepancy 009 (TD-009) for preoperational test SU3-BG03 was written because the procedure did not provide space for "witness/date" signature for second verification of step 7.2.13.14. This was corrected by licensee test personnel by making a change to the procedure. This resolution of TD-009 was not entered in the discrepancy log and signed by the startup engineer. This change to the procedure was accomplished without implementing a TCN. ADM 14-200, Revision 6, paragraphs 4.2 and 4.2.1.2.2 requires a formal test change.

The above items are considered a violation of the Level V Severity (482/8420-01).

6. Exit Interview

An exit interview was conducted on August 10, 1984, with licensee representatives (identified in paragraph 1). The operations resident inspector also attended the exit interview. During this interview, the lead inspector discussed the inspection findings.