Appendix B

U.S. NUCLEAR REGULATORY COMMISSION

REGION IV

NRC Inspection Report: 50-483/84-35 CP: CPPR-147

Docket: 50-482 Category: A2

Licensee: Kansas Gas and Electric Company (KG&E)
Post Office Box 208
Wichita, Kansas 67201

Facility Name: Wolf Creek Generating Station (WCGS)

Inspection At: Wolf Creek Site, Coffey County, Burlington, Kansas

Inspection Conducted: September 10-13, September 24-28 and October 1-5, 1984

Inspectors: R. J. Smeenge — Date: 10/19/84

H. A. Walker — Date: 10/19/84

Approved By: F. C. Hawkins, Chief
Quality Assurance Programs Section — Date: 10/19/84

L. E. Martin, Chief
Wolf Creek Task Force — Date: 11/14/84

R. P. Denise, Director
Wolf Creek Task Force — Date: 11/15/84

Inspection Summary

Inspection on September 10-13, September 14-28 and October 1-5, 1984 (Report No. 50-482/84-35)
Areas Inspected: Routine, announced inspection by Region III inspectors of QA program-administration, audits, document control, design changes & modifications, records, test and measuring equipment, safety committee activity and corrective action. The inspection involved 193 inspection-hours onsite by two inspectors.

Results: Of the eight areas, no items of noncompliance or deviations were identified in five areas; one item of noncompliance, with an example in each of the remaining three areas was identified (failure to follow approved procedures - Section II, Paragraphs 1.b, 2.b.(3) and 5.b).

DETAILS

1. Persons Contacted

Kansas Gas and Electric Company (KG&E)

+R. M. Grant, Director-Quality
+*R. L. Stright, Licensing
*O. Maynard, Licensing Supervisor
*W. J. Rudolph, Manager QA (WCGS)
+*C. G. Patrick, Superintendent Quality Evaluation
+*W. M. Lindsay, Supervisor Quality Systems
+G. W. Reeves, Superintendent Quality Control
+R. M. Stambaugh, QA Audit Supervisor
+M. G. Williams, Superintendent Regulatory Quality Administration
B. T. McKinney, Instrumentation and Control Supervisor
D. McDaniels, Manager Document Control
T. Morril, Supervisor Chemistry Lab
D. Walch, Maintenance Service Supervisor
V. L. MacTaggart, Results Engineering Supervisor
B. Jurres, Operations Supervisor
D. Phillips, Secretary of PSRC
M. E. Williams, Assistant to Plant Manager
T. G. Gross, Construction Records
B. Bridges, DIC Records Supervisor

Other personnel were contacted as a matter of routine during the inspection.

USNRC

+H. F. Bundy, Resident Inspector

*Denotes those attending the entrance interview of September 10, 1984.

+Denotes those attending the exit interview on October 5, 1984.

2. Program Areas Inspected

This inspection was primarily conducted to determine the degree of implementation of the operations QA program to support the issuance of an operating license. Other inspections in this area have been conducted or are planned in order for the NRC to make this assessment. The results of this inspection are documented in Sections I and II of this report.

3. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the NRC, and which involve some action on the part of the NRC or licensee or both. Open items disclosed during the inspection are discussed in paragraphs Section I, paragraph 2.b and Section II, paragraph 2.b.(3) and 4.b.(1).

4. Exit Interview

On October 5, 1984, Messrs. Smeenge and Walker met with licensee representatives at the Wolf Creek Plant. Licensee representatives in attendance at the exit interview are denoted in paragraph 1. The inspectors summarized the purpose, scope, and findings of the inspection at the exit interview.

Section I

Prepared By: H. A. Walker
Reviewed By: F. C. Hawkins, Chief
Quality Assurance Programs Section

1. QA/QC Administration

The administration of the Wolf Creek QA/QC program was reviewed to verify compliance with regulatory requirements and operational QA program commitments. The inspection was performed by reviewing portions of the Quality Program, applicable procedures and records, and by conducting personnel interviews.

a. Documents Reviewed

(1) FSAR Chapter 17.0, Section 17.2, "Quality Assurance During the Operations Phase"

(2) Nuclear Department Policy Manual

(a) Directive I-1, Revision 1, "Preface and Approval of the Manual"

(b) Directive I-2, Revision 1, "Issuance and Control of the Manual"

(c) Directive I-3, Revision 18, "Revisions to the Manual"

(d) Directive II-8, Revision 1, "Project Quality"

(e) Directive III-2, Revision 14 with PCNs 1 & 2, "Procedural Control"

(f) Directive III-3, Revision 13, "Quality Assurance Committee"

(g) Directive III-10, Revision 14, "Identification and Correction of Quality Assurance Records"

(h) Directive III-39, Revision 0, "Inspection"

(3) Quality Program Manual

(a) QPM-1, Revision 1 with PCNs 1 and 2, "Quality Branch Organization"

(b) QPM-2, Revision 0, "Operating Quality Program"

(c) QPM-6, Revision 1, "Document Control"

(4) Quality Assurance Procedures Manual (WCGS)

(a) QAP C5.1, Revision 0, "Preparation, Approval and Issuance of Procedures, Instructions and Forms"

(b) QAP W12.1, Revision 0, "Inspection Planning for Work Activities"

(5) Other Documents

(a) QCP 14.1, Revision 0, "Qualification and Certification of QC Inspection Personnel"

(b) ADM 07-100, Revision 18 with temporary changes 48-30 and 84-148, "Preparation, Revision, Approval and Distribution of WCGS Procedures"

(c) Project "Q" List

b. Results of Inspection

During the inspection the quality list or "Q" list used to identify those safety related systems, components and activities to which the quality program applies was reviewed. A component level "Q" list has been completed and issued for use. This list is maintained by Bechtel Engineering in the Gaithersburg, Maryland office. Change control was maintained by section and was adequate. Methods of utilizing this list to determine the quality category of work, such as maintenance, was satisfactory. The inspector also reviewed the methods for procedure preparation, approval and control.

No violations or deviations were identified.

2. Audit Program

The Wolf Creek project audit program was reviewed to verify compliance with regulatory requirements and quality assurance program commitments. Inspection of the audit program was limited to internal quality assurance audits of operations related activities. Offsite audits of the project and audits of suppliers will be addressed in a subsequent inspection. Project QA audits were conducted by a separate quality organization which reports through an independent channel to the corporate QA manager. The inspection was performed by reviewing applicable procedures and records and by conducting personnel interviews.

a. Documents Reviewed

(1) Nuclear Department Policy Manual Directive III-38, Revision 0, "Audits"

(2) Quality Assurance Program Manual QPM-18, Revision 0, "Audits"

(3) Quality Assurance Procedures Manual (WCGS)

(a) QAP 18.1, Revision 0, "WCGS Audit Scheduling and Surveillance Information Reporting"

(b) QAP 18.2, Revision 0 with PCN #1, "WCGS Audit Procedure"

(c) QAP 18.3, Revision 0 with PCN #1, "WCGS Surveillance Procedure"

(d) QAP C2.2, Revision 0, "Qualification and Certification of Quality Branch Personnel"

(4) Selected audit records

(5) Selected lead auditor certification packages

(6) Selected surveillance records

b. Results of Inspection

The inspector reviewed applicable audit procedures, audit schedules for 1983 and 1984 (annual and quarterly), records for six audits, certification records for four lead auditors and records for five surveillances.

During the review of the 1984 audit schedules the inspector noted that twenty QA audits were scheduled for the first quarter of 1984 and only ten were performed as scheduled. The other ten were cancelled or rescheduled at a later date. The inspector noted that the rescheduled dates for some of the audits did not appear to provide a review of certain activities early enough in the program to ensure adequate control. During the inspection KG&E quality assurance evaluated the cancelled and postponed audits for scheduled timeliness. Adjustments were made in the schedule which adequately addressed the problem. The inspector has no further concerns in this area.

Additionally, a review of records for audit TE 75953-K023 indicated that significant problems had been identified by the auditor. These problems were documented on corrective action requests (CARs) 16 and 17. Due to the significance of these issues, the resolution of CARs 16 and 17 is considered to be an open item (482/84-35-01).

No violations or deviations were identified.

3. Corrective Action Program

The inspector reviewed the corrective action program and its implementation to verify conformance with regulatory requirements and quality program commitments. The review included action taken as the result of audit findings and surveillance findings and a review of the corrective action request system.

a. Documents Reviewed

(1) Nuclear Department Policy Manual

(a) Directive III-17, Revision 1, "Reporting Significant Deficiencies and Defects"

(b) Directive III-26, Revision 2, "Corrective Action"

(c) Directive III-31, Revision 1 with PCNs 1 & 2, "Nonconformances"

(2) Quality Program Manual

QPM-16, Revision 0, "Corrective Action"

(3) Quality Assurance Procedures Manual (WCGS)

(a) QAP C2.1, Revision 0, "QA Program Effectiveness"

(b) QAP C16.3, Revision 0, "Trend Analysis"

(4) Other Procedures

(a) ADM 01-025, Revision 3, "Corrective Action Responses"

(b) ADM 01-058, Revision 0, "Nonconforming Materials, Parts and Component Control"

b. Results of Inspection

The inspector reviewed the applicable procedures, followup and action taken on problems identified during audits and surveillances and the corrective action request system. Actions taken on identified quality problems were reviewed for timely and appropriate action. Four corrective action requests with actions taken were reviewed.

No violations or deviations were identified.

Section II

Prepared By: R. J. Smeenge
Reviewed By: F. C. Hawkins, Chief
Quality Assurance Programs Section

1. Records

The inspector reviewed the licensee's record storage program to ascertain whether the licensee has developed a QA program relating to the control of records that is in conformance with Regulatory requirements, commitments in the application and industry guides and standards. The following items were considered during this review: written procedures established for maintaining records, storage facilities, record filing and identification, record quality, filing of supplemental information and disposing of superseded records, review and approval of records, identification of retention time, and disposition of records no longer requiring storage.

a. Documents Reviewed

(1) ADM 07-404, "Wolf Creek Technical File Index", Revision 1

(2) ADM 07-406, "Records Administration and Storage", Revision 10

(3) KP-1076, "File Management", Revision 1

b. Results of Inspection

The QA records storage vault is rated to meet the criteria of ANSI N45.2.9-1974 requirements. The vault was clean and well organized. Controls are established for access to storage files and record use. The vault presently contains over 190,000 records which are indexed and maintained in separate protective folders and notebooks on steel shelves. The inspector selected 22 records to review. All were found to be complete. A review and approval of these records was documented and a checklist was used to verify the contents of each package. The retention period for each record was identified.

The KG&E and Daniel International Corporation (DIC) construction records vaults were also inspected. Both vaults were clean and well organized. QA records in these vaults were in the process of being microfilmed, turned over to the QA storage vault, or transferred to permanent offsite storage. The vaults were rated to meet the criteria of ANSI 45.2.9-1974, except that the KG&E vault did not have controlled humidity necessary for film storage. Radiographic film records were stored in the DIC vault, which has controlled humidity.

The inspector found several stacked packages of radiographic film in the DIC vault. Administrative Procedure ADM 07-406 (paragraph 6.2.2.3.1) states that film shall not be stacked. Additionally,

ANSI PH 1.43 (paragraph 3.2) states that films should not be stacked so that they are stored under high pressure. This failure to store radiographic film in accordance with approved procedures is considered to be a violation of 10 CFR 50, Appendix B, Criterion V (482/8435-02A).

2. Document Control

The inspector reviewed the licensee's document control program to ascertain that administrative controls have been established to provide timely distribution of current as-built documents. The following other areas were considered during this review: required proposed changes and revisions receive the same level of management review required of the original document, outstanding revisions are appropriately identified, disposition of obsolete documents is identified, and discrepancies found between as-built drawings and constructed facilities are handled as design changes.

a. Documents Reviewed

(1) ADM 07-100, "Preparation, Review, Approval and Distribution of WCGS Procedures", Revision 18

(2) ADM 07-407, "WCGS Document Control", Revision 5

(3) ADM 08-812, "I&C Document Control", Revision 1

(4) KP-1031, "Document Release Record System", Revision 0

(5) KP-1038, "Controlling and Releasing WCGS Design Drawings", Revision 0

(6) KP-1039, "Controlling and Releasing Design Document Change Notices", Revision 0

(7) KP-1042, "Release and Controlling Specifications", Revision 0

(8) KP-1046, "Cross Reference List Maintenance"

b. Results of Inspection

(1) The inspector selected 15 documents listed on the Document Release Records System. Distribution for these documents, as determined from the Distribution Matrix, was verified in the control room, maintenance and technical staff files. In all areas, the current revisions of the documents and all identified unincorporated change notices were located. The unincorporated change notices were identified in a red stamped area of the controlled copies. Obsolete documents had been destroyed or returned to the document control area as appropriately identified on the transmittal.

(2) Documented reviews of proposed changes and revisions consistent with the level of management review required of the original document were being maintained as quality records.

(3) Incorporation of changes to the design documents was reviewed using the DIC Design Change Record. The Design Change Record identifies many documents with open change notices more than a year old and with more than five unincorporated change notices. For example, the Plant Set Point Document has 60 unincorporated change notices which were identified. This document is updated each month by the Results Engineering group. A review indicated that 48 of these change notices had been incorporated in the monthly updates; leaving 12 unincorporated changes. Additionally, the Plant Electrical Termination document (E 17000) had 260 open change notices identified. These changes have issue dates as far back as August, 1982

Procedure QPM-6, paragraph 6.1.6, limits the number of unincorporated change notices for a document to five and specifies that they are to be incorporated within one year from the date of issue. These failures to incorporate design changes into the design documents in accordance with approved procedures is considered to be an additional example of violation of 10 CFR 50, Appendix B, Criterion V (482/8435-02B).

Procedure KP-1046, paragraph 4.1 states that the Cross Reference List (CRL) identifies nonconformance reports, field change requests, and other as-built variances from design documents which Bechtel will not incorporate in the design documents. Personnel interviewed at the site could not identify which organization is responsible to incorporate these changes into the design documents. The inspector is concerned whether accurate as-built documents will be available when the plant is operational. This matter is considered an open item pending further review (482/84-35-03).

3. Safety Committee Activity

The safety review committee program was reviewed to ascertain whether the licensee was implementing a program that is in conformance with Technical Specification requirements and commitments in the application. The inspector verified that an onsite safety review committee has been established and is functioning in accordance with the written procedures. The inspector also verified that a charter and procedures have been provided to establish an offsite safety review committee.

a. Documents Reviewed

(1) ADM 01-200, "Plant Safety Review Committee", Revision 12

(2) ADM 01-022, "Authorization of Changes, Tests and Experiments (10 CFR 50.59)", Revision 2

(3) KP 701, "Nuclear Safety Review Committee NSRC Chairman, Vice-Chairman Duties and Responsibilities", Revision 1

(4) KP702, "Nuclear Safety Review Committee NSRC Secretary Duties and Responsibilities", Revision 2

(5) KP 703, "Nuclear Safety Review Committee NSRC Member Duties and Responsibilities", Revision 0

(6) KP 703.1, "Nuclear Safety Review Committee Alternate Membership", Revision 0

(7) Nuclear Safety Review Committee (NSRC) Charter

b. Results of Inspection

The inspector reviewed the procedures which establish the membership, responsibility and authority of the onsite Plant Safety Review Committee (PSRC). This committee met 13 times during the last 90 day period. The agenda and minutes for these meetings were reviewed and found to be satisfactory. The procedures and charter which establish the offsite Nuclear Safety Review Committee (NSRC) were also reviewed and found to be consistent with Section 6.5.2 of the Technical Specification and Section 13.4.2 of the FSAR.

No violations or deviations were identified.

4. Design Changes and Modifications

The inspector reviewed the licensee's program to ascertain whether controls have been established for control of design changes and modifications that is in conformance with regulatory requirements and commitments in the application. The following items were considered during the review: written procedures, initiation of a design change or modification, reviews performed, considerations for unreviewed safety questions, identification of design responsibilities, distribution of design documentation, quality records, implementation of design changes or modifications, and temporary modifications.

a. Documents Reviewed

(1) ADM 01-002, "Plant Safety Review Committee", Revision 12

(2) ADM 01-022, "Authorization of Changes, Tests and Experiments (10 CFR 50.59)", Revision 2

(3) ADM 01-041, "Initiation of Plant Modification Requests", Revision 2

(4) ADM 01-042, "Engineering Study for Plant Modification Request", Revision 2

(5) ADM 01-053, "Engineering Evaluation Request", Revision 0

(6) ADM 02-100, "Clearance Order Procedure", Revision 6

(7) ADM 02-101, "Lifted Wire and Jumper Control", Revision 7

(8) ADM 05-100, "Results Engineering Organization and Responsibilities", Revision 0

(9) ADM 05-108, "Safety Related Design", Revision 0

(10) ADM 07-407, "WCGS Document Control", Revision 5

(11) ADM 08-210, "Control of Maintenance and Modifications", Revision 0

(12) KPN-E-302, "Design Input", Revision 2

b. Results of Inspection

(1) The inspector verified, through the the review of procedures, that control of design changes and modifications has been established. Responsibility for the design and reviews to be performed have been identified. Due to the lack of activity in the area of design changes and modifications at this time, complete evaluation of this program could not be performed. Completion of this effort is considered an open item which will be performed after the plant is operational (482/84-35-04).

(2) Thirteen Lifted Wire and Jumper Orders from the log which is maintained in the control room were selected for review. Four of the 13 were identified as having been completed and the system restoration verified. The areas identified on the Lifted Wire and Jumper Orders were examined for verification of temporary modification tags or restoration as appropriate. Of the four completed orders, two had just been restored and the forms were in the review process for transmittal to Quality Records. The other two were found in the quality records vault.

No violations or deviations were identified.

5. Test and Measuring Equipment

The inspector reviewed the licensee's test and measuring equipment program to determine if controls have been established that are in conformance with Regulatory requirements, commitments in the application, and industry guides and standards. The following items were considered in the review: procedures, assignment of responsibilities, test and measuring equipment calibration status and records, and controls to ensure that each piece of equipment is calibrated and adjusted on or before the date required.

a. Documents Reviewed

(1) ADM 04-014, "Quality Control Program for Chemistry Instrumentation", Revision 4

(2) ADM 08-210, "Control of Test Equipment", Revision 0

(3) ADM 08-801, "Calibration Laboratory Equipment", Revision 3

(4) ADM 08-806, "I&C Group Calibration of Process Instrumentation and Special Maintenance", Revision 3

(5) ADM 08-810, "Instrument Review Program", Revision 5

b. Results of Inspection

The inspector selected 16 pieces of test and measuring equipment identified on the Calibration Master Log. The records for this equipment were reviewed in the calibration lab. All were found to be calibrated on or before the scheduled date. The records reviewed identified the procedures and calibration standards used, measured values before and after calibration, documented the person performing the calibration, records of use, and provisions for notifying and obtaining documented evaluation for acceptability of items previously tested, using out-of-calibration equipment.

The inspector reviewed the records in the chemistry labs which provided evidence that standard solutions or gases are used for calibration checks prior to use of the pH meters, conductivity bridges or gas chromatograph instruments. All the records reviewed were found to be satisfactory.

Ten completed surveillance tests were selected from the QA records vault. A record was made of the test and measuring equipment used during the tests. The calibration status of the equipment used was verified against the records in the calibration lab. All were found to be properly calibrated at the time of the tests. Of the 24 pieces of equipment involved in this review, all except a megger

(which was physically damaged some time after the performance of the test) were shown to be within the calibration tolerance when returned to the calibration lab for scheduled calibration.

The inspector reviewed the Maintenance Test and Measuring Equipment Calibration Log maintained in the maintenance office. On the first page of this log, five pieces of equipment were identified as having exceeded the calibration due date. The records for the five pieces of equipment were reviewed in the calibration lab. All had been calibrated on schedule but the log had not been updated to reflect the current calibration. Procedure ADM 08-210, paragraph 5.3 identifies the group leaders of the Maintenance Department as responsible for maintaining the Maintenance Test and Measuring Equipment Log. This failure to maintain the calibration log in accordance with approved procedures is considered to be an additional example of violation of 10 CFR 50, Appendix B, Criterion V (482/84-35-02C).

The calibration tags on instruments stored in the electrical shop were also reviewed. All were found to be within the scheduled calibration, except milliammeter No. WC 6018. The scheduled calibration for this instrument was June 6, 1984. A review of the history of use records indicated that it had not been used for any test after June 6, 1984. Licensee personnel promptly removed the instrument from the storage area. The inspector viewed this as an isolated incident and has no further questions at this time.