

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: STN 50-482/85-01      Construction Permit: CPPR-147

Docket: STN 50-482

Licensee: Kansas Gas and Electric Company (KG&E)  
P. O. Box 208  
Wichita, Kansas 67201

Facility Name: Wolf Creek Generating Station (WCGS)

Inspection At: WCGS Site in Coffey County, Kansas

Inspection Conducted: January 14-16, 1985

Inspector:

H. Chaney  
H. D. Chaney, Radiation Specialist, Facilities  
Radiological Protection Section

1/31/85  
Date

Approved:

B. E. Murray  
B. Murray, Chief, Facilities Radiological  
Protection Section

2-1-85  
Date

L. E. Martin  
L. Martin, Chief, Project Section A  
Reactor Project Branch 2

2/12/85  
Date

Inspection Summary

Inspection Conducted January 14-16, 1985 (Report STN 50-482/85-01)

Areas Inspected: Routine, announced inspection of the licensee's radiation protection (RP) program, TMI action items (NUREG-0737), and selected RP open items associated with the emergency preparedness program. The inspection involved 23 inspector-hours onsite by one NRC inspector.

Results: Within the three areas inspected, no violations or deviations were identified.

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DETAILS

1. Persons Contacted

KG&E

- \*F. Rhodes, Plant Manager
- \*F. McLaurin, Assistant Startup Manager
- \*M. Williams, Superintendent, Regulatory, Quality and Administration Service
- \*M. Nichols, Site Health Physicist
- \*R. Hoyt, Emergency Planning (EP) Administrator
- \*W. Lindsay, Supervisor, Quality Systems
- \*C. Hoch, Quality Assurance Technician
- \*K. Peterson, Licensing
- \*B. Collin, Independent Safety Engineering Group
- .J. Ives, Health Physics (HP) Supervisor
- \*C. Swartzendruber, Radiological Services Manager
- \*H. Chernoff, Licensing

Others

- B. Guldemond, Resident Inspector, Wolf Creek
- \*B. Bartlett, Resident Inspector
- E. Allen, Consultant
- J. Pursel, Consultant
- R. Anderson, Consultant

\*Denotes those present at the exit interview.

The NRC inspectors also contacted other KG&E personnel including administrative, engineering, health physics, and operations personnel.

2. Licensee Actions on Previous Inspection Findings

(Closed) Open Item (482/8218-06): Environmental Monitoring Program Procedures - The licensee had revised procedures KP-RE205, KI-RE205.13, and KI-RE205.18 to resolve the concerns identified by the NRC. Also, the licensee had requested a change to the draft Technical Specifications deleting the surface water quarterly composited sample and replacing it with a monthly grab sample. This item is considered closed.

(Closed) Open Item (482/8434-03): Effluent and Process Radiation Monitors For Accident Dose Assessment - The item involved the licensee's emergency preparedness procedures (EPP 01-2.1 and 01-7.1) related to obtaining dose assessment data from certain plant radiation monitors. Since the installation, preoperational testing, calibration, and surveillance testing programs for these monitors are being tracked as open

items 482/8406-02, 03, and 04, and 482/8323-08 and 09, this item (482/8434-03) is considered closed.

(Closed) Deviation (482/8434-01): Weather Service Agreement - The licensee had established an agreement for general meteorological services with the National Weather Service Forecast Office, Topeka, Kansas, effective November 15, 1984. This item is considered closed.

3. Previously Identified Open Items That Were Not Closed During This Inspection

a. Items That Could Impact on Fuel Loading or Initial Criticality

Open Item (482/8406-02): NUREG 0737, Item II.F.1-1, High Range Noble Gas Effluent Monitors - This item involves the following licensee systems:

- GH-RE-10B Radwaste Building Exhaust Monitor
- GT-RE-21B Plant Unit Vent Monitor
- FC-RE-385 Auxiliary Feedwater Turbine Exhaust Monitor
- AB-RE-111 - 114 Main Steam Relief Valve Monitors

Monitors GH-RE-10B and GT-RE-21B are wide range effluent gas monitor systems (WRGMS) and FC-RE-385 and AB-RE-111 through 114 are fixed gamma monitors that measure radiation from the noble gas contained in a steam plume.

The licensee had completed preoperational testing of the WRGMS but not the steam line monitors and had requested relief from the Office of Nuclear Reactor Regulation (NRR) to delay completion of the preoperational test on the steam line monitors until after fuel load (KG&E letter to H. Denton, NRC, dated December 12, 1984, serial number KMLNRC 84-214). The NRC inspector noted during the review of the preoperational tests for the WRGMS and other radiation monitors that these tests do not include operational tests and functional response checks normally performed during instrument calibration. The licensee stated that specific instrument channel calibrations to verify design response criteria will be accomplished separate from the preoperational tests and in accordance with Technical Specifications surveillance testing requirements. The WRGMS serves as the licensee's routine gaseous effluent release monitors (Technical Specification 3.3.3.11) and also as the reactor accident high range noble gas monitors (Technical Specification 3.3.3.6) both of which have different operability requirements. Since routine gaseous effluent monitoring is required during all modes of reactor operation, monitors GT-RE-10B and GT-RE-21B must be operational, tested, and calibrated prior to fuel loading or Technical Specification relief must be obtained. The other monitors (steam relief and auxiliary turbine) should be operational prior to criticality.

This item remains open pending resolution of the concerns noted above and NRR response to the requested relief.

Open Item (482/8406-04): NUREG-0737, Item II.F.1-3, Containment High Range Radiation Monitor - This item was previously discussed in NRC Inspection Report 50-482/84-34. The licensee had not completed the in-place calibration of the two detectors (GT-RE-59 and 60). The licensee is seeking relief from NRR on having the detectors fully operational and calibrated prior to fuel loading as required by NUREG-0737. These detectors are not required to be operational until the reactor is operating in mode 3 per the draft WCGS Technical Specifications.

The NRC inspector noted during the review of the proposed calibration procedure (STS IC-460 A and B) for the monitors that the procedures did not include the use of a calibrated radioactive source to verify in-place calibration at least one decade below 10 R/hr. Also, the licensee could not locate documentation to verify calibration prior to initial use, for the decade ranges between 1 and 1000 R/hr. These calibrations are required by Table II.F.1-3 of NUREG-0737.

The NRC inspector expressed his concern that the licensee is to have radiation protection instrument calibrations controlled by two separate procedures: a Technical Specification surveillance test procedure, and a plant staff group procedure. This concern is reinforced by the fact that the surveillance procedures for the containment high range monitors referenced that the chemistry group would continue any remaining calibrations at the end of each procedure; even though the HP group had been assigned this responsibility. The HP group had not yet drafted a procedure for the completion of the monitors calibration (calibration with a radioactive source).

This item remains open pending calibration of the above monitors.

b. Open Items That Could Impact on Exceeding 5 Percent Power Operations

Open Item (482/8411-01): Meteorological System Equipment Reliability - This item was previously discussed in NRC Inspection Reports 50-482/84-11, 84-34, and 84-54. The licensee was informed that the NRC's concerns regarding the reliability of meteorology systems computer interface (Radiological Release Information System (RRIS)) stems from data collection problems discussed in NRC Inspection Reports 50-482/84-34 and 84-54, and the lack of definitive data to demonstrate a suitable availability factor for the RRIS which is considered a part of the licensee's emergency response program. The guidance on data collection reliability and system availability are referenced in NUREG-0696 and by NUREG-0737. This item remains open.

Open Item (482/8406-03): NUREG-0737, Item II.F.1-2, Sampling and Analysis of Plant Effluent - The licensee had revised chemistry procedure CHM 01-007, to provide adequate guidance and RP controls for the change out and analysis of the iodine and particulate samples in the sample conditioning skids attached to the WRGMS (see paragraph 3.a of this report). The licensee had neither accomplished preoperational testing of these systems nor completed technician training on the performance of postaccident sample collection using these systems (WRGMS sample conditioning skids). This item remains open.

4. Exit Interview

The NRC inspector met with the licensee's representatives denoted in paragraph 1, and the NRC resident inspector at the conclusion of the inspection on January 16, 1985. The NRC inspector discussed the scope and findings of the inspection. The NRC inspector noted that the licensee's basic radiation protection program appeared to be adequate to support reactor operations. The NRC inspector emphasized the need for the licensee to complete actions to resolve the remaining open items discussed in paragraph 3 that could impact on fuel load and/or reactor operations exceeding 5 percent power.