

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: STN 50-482/84-11

CP: 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: Burlington, Kansas (WCGS Site)

Inspection Conducted: May 7-11, 1984

Inspector: H. Ch...
for W. L. Holley, Radiation Specialist

6/5/89
Date

Approved: H. Ch...
for Blaine Murray, Chief, Facilities Radiation
Protection Section

6/5/89
Date

For S.H. Johnson
W. D. Johnson, Chief, Project Section A,
Reactor Project Branch 2

6/11/84
Date

Inspection Summary

Inspection Conducted May 7-11, 1984 (Report STN 50-84-11)

Areas Inspected: Routine, announced inspection of preoperational environmental protection programs including: organization and management controls, audits, training, preoperational and planned operational nonradiological and radiological environmental monitoring programs, meteorological monitoring program, procedures, records and reports, and a tour of the site and surrounding area to include selected environmental monitoring stations. The inspection involved 35 inspector-hours onsite by one NRC inspector.

Results: Within the 8 areas inspected, no violations or deviations were identified. One new open item is summarized in paragraph 4.

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DETAILS

1. Persons Contacted

KG&E

- *A. DiCesaro, Licensing Engineering
- *R. Ewy, Operations Utility Helper
 - S. Hatch, Operations Training Coordinator
 - W. Hensley, Quality Branch Training Coordinator
 - V. King, Radiological Assessment Engineer
- *R. Lewis, Radiological/Environmental Assessment Manager
- *W. Lindsay, Quality Assurance Quality Systems Supervisor
 - B. McKinney, Instrument and Controls (I&C) Supervisor
 - J. McKinstry, Operations Co-Ordinator
- *M. Megehee, Safety Engineer
 - G. Smith, Training Specialist
 - R. Stambaugh, Audit Supervisor
- *C. Steinert, Quality Assurance Technologist
- *B. Vince, Environmental Biologist
- *G. Wedd, Environmental Assessment Supervisor
- *S. Williams, Senior Environmental Biologist

Other Personnel

The NRC inspector also interviewed several other licensee technicians.

*Denotes those present during the exit interview on May 11, 1984.

2. Licensee Action on Previous Inspection Findings

(Closed) Open Item (482/8218-02): Staff Qualifications and Training - This item involved the licensee not implementing an approved training plan for members of the Radiological and Environmental Assessment Staff. The licensee had issued Nuclear Services Procedures KP-C205, "Training and Indoctrination, Revision 0, March 15, 1984, and KP-RE208, Indoctrination and Orientation of New Environmental Assessment Staff Members," Revision 0, November 14, 1983. The licensee initiated the implementation of these procedures. This item is considered closed.

(Closed) Open Item (482/8218-03): Licensee Audits - This item involved the licensee not establishing a review and audit program for the environmental protection program. The licensee had developed an audit for the environmental protection program, performed the audit (Audit 57951-K024), and had a schedule for future audits. This item is considered closed.

(Closed) Open Item (482/8218-04): Operational Radiological Environmental Programs - This item involved the licensee not developing nor implementing surveillance programs (fog monitoring, waterfowl collision monitoring, and National Pollutant Discharge Elimination System (NPDES) permit monitoring) to satisfy the Final Environmental Statement - Operating License. The licensee had established a fog monitoring program (Procedures KI-RE207.2, "Log Visiometer Operating Procedure," and KI-RE209, "Tigraph Calibration Procedure"), waterfowl collision monitoring program (Procedure KI-RE204.19, "Transmission Line Collision Survey"), and a NPDES Permit monitoring program (Procedures KI-RE203.1, "NPDES Permit Administration"; KI-RE203.2, "NPDES Deviation Resolution"; and KP-RE203, "Environmental Permit Administration"). This item is considered closed.

(Closed) Open Item (482/8218-05): Operational Radiological Environmental Programs - This item involved the licensee not developing nor implementing procedures for an environmental airborne radioiodine monitoring program. The licensee developed and implemented Procedures KI-RE205.19, "Collection, Preparation and Shipment of Radioiodine Sample" and KI RA210.1, "Review of Radiological/Environmental Laboratory Analysis." The NRC inspector noted that the licensee contractor participated in the Environmental Protection Agency (EPA) cross-check program and had established the detection capabilities for gross beta concentrations for air particulate samples. This item is considered closed.

(Closed) Open Item (482/8218-07): Environmental Air Sampling - This item involved the NRC inspector's concern about the representative sampling of the air samples when considering the circuitous route and prefiltering effect of sampled air by the screens of the sampler housing. The licensee performed a 6-month experiment with screens removed from four sample houses and four with no change. There were no significant differences between the two groups' data at a 95 percent confidence level. This item is considered closed.

(Closed) Open Item (482/8218-08): Quality Control of Analytical Measurements - This item involved the licensee's procedures for environmental monitoring not providing adequate control over use of calibrated instruments and air particulate sampler's calibrator. The licensee found the spring scale data acceptable, developed, and implemented Procedure KP-RE209, "Environmental Assessment Equipment Control and Calibration," documented the calibration of instrumentation used to calibrate air samplers, and exhibited a contractor report, "Evaluation of Teledyne Isotopes Environmental TLD System," for compliance with USNRC Regulatory Guide (RG) 4.13 and ANSI N545-1975. This item is considered closed.

3. WCGS Construction Phase Environmental Protection Program

The environmental protection programs to be accomplished during the construction and preoperational phases are discussed in: WCGS Environmental Report; WCGS Environmental Report-Operating License Stage; Final Safety Analysis Report (FSAR); NUREG-75/096, "Final Environmental Statement Related to Construction of Wolf Creek Generating Station Unit 1"; and NUREG-0878, "Final Environmental Statement Related to the Operation of Wolf Creek Generating Station, Unit No. 1." These programs include the following areas:

- o Surface Waters
 - Physical and Chemical Parameters
 - Ecological Parameters
- o Ground Water
 - Physical and Chemical Parameters
- o Air
 - Meteorology
 - Fog
- o Land
 - Regional Demography
 - Land Use
 - Geology
 - Ecological Parameters
- o Radiological Surveys
 - Airborne Radiological and Particulates
 - Direct Radiation
 - Waterborne Sampling (surface, ground, drinking, ecological parameters, and sediments)
 - Ingestion (fish, invertebrates, fruits, vegetables, milk, poultry, eggs, meat animals, and livestock feed)

The NRC inspector reviewed the baseline studies and preconstruction/construction phase portions of these environmental programs and considered them to be adequately completed. The NRC inspector determined the results of these studies were properly documented. A portion of these programs will continue under the operational phase of WCGS as noted in paragraph 4 of this report.

No violations or deviations were identified.

4. Planned Environmental Protection Program for WCGS During Operation

The NRC inspector determined that the licensee had a planned environmental protection program which will meet the requirements of NUREG-0472, "Radiological Effluent Technical Specifications for Pressurized Water Reactors." The program is described in Sections 3/4.12, B 3/4.12, and 6.9.1.6 of the "Technical Specifications for Wolf Creek - Unit 1," and the implementing procedures are mainly in Procedures KP-RE 204, "Ecological Monitoring Program Administration," and KP-RE 205, "Radiological/Environmental Monitoring Program Implementation," of the Nuclear Services Procedures Manual. The following items are included in the operational program.

- o Direct Radiation Measurements
- o Airborne Radioactivity Measurements
 - Radioiodine and Particulates
- o Waterborne Radioactivity Measurements
 - Surface Water
 - Ground Water
 - Drinking Water
 - Sediment
- o Ingestion of Radioactivity Estimates
 - Milk
 - Fish
 - Food Products
- o Environmental Chemical Effluent Monitoring
- o Environmental Thermal Monitoring
- o Ground Water Monitoring
- o Land Use Census
- o Meteorological Monitoring
- o Offsite Dose Calculation Manual

The NRC inspector reviewed the above items and determined that the licensee's proposed program agrees with NUREG-0472.

The NRC inspector toured the majority of the various sampling locations. During this tour, the NRC inspector noted that the equipment and instrumentation were operating, calibrated, and properly maintained.

In reviewing the licensee's meteorological facility and instrumentation, it was determined that they met the recommendations of NUREG-1.23 except for the instrumentation readout not being in the control room, but only being at the meteorological tower in the instrument shelter. To rectify this, the licensee had initiated the installation of a radiological release information system (RRIS) with fiber optics signal transmission to graphic CRT readouts in several places including the control room. The present meteorological system had met the reliability recommendations of NUREG-1.23, but with the addition to the system of the RRIS the reliability will be undetermined. Therefore, this is considered Open Item 482/8411-01 pending the licensee's collection of meteorological data post RRIS installation to demonstrate overall system reliability.

No violations or deviations were identified.

5. Organization and Management Controls

The NRC inspector examined the licensee's organization and management controls to determine the ability to comply with construction permit requirements and commitments in NUREG-0878, "Final Environmental Statement Related to the Operation of WCGS Unit No. 1."

The only changes that occurred in the environmental protection organization since the last inspection (NRC Inspection Report 50-482/82-18) was the emergency planning group reporting to the licensing manager instead of the radiological/environmental assessment manager and the addition of an environmental biologist to the environmental assessment staff. The management controls and staffing appear to be adequate for implementing the licensee's environmental protection program.

No violations or deviations were identified.

6. Staff Qualifications and Training

The NRC inspector reviewed the licensee's environmental staff qualifications and training to determine compliance with FSAR and Final Environmental Statement commitments, 10 CFR Part 19.12 requirements, and the recommendations of ANSI N18.1-1971.

The NRC inspector determined that the licensee maintained adequate records of personnel qualifications, job descriptions, and assignment responsibilities in the environmental protection program. The licensee had implemented the recently written training procedures for the environmental protection program. They were KP-C205, "Training and Indoctrination," and KP-RE208, "Indoctrination and Orientation of New Environmental Assessment Staff Members."

The NRC inspector reviewed lesson plans and documentation of training presented to operations personnel on the meteorological system. Also, training records of I&C personnel who received training according to I&C Training ADM 08805, "I&C Training and Qualifications." This training included the maintenance and calibration procedures for the meteorological equipment and instrumentation.

The NRC inspector determined by review of licensee records and discussions with licensee personnel that the environmental protection staff appeared to be adequately qualified in the current aspects of the environmental protection program.

No violations or deviations were identified.

7. Licensee Audits

The NRC inspector reviewed the licensee's quality assurance audits of the WCGS environmental protection program activities to determine compliance with Appendix B of 10 CFR Part 50 and the recommendations of RGs 1.33, 4.1, and 4.15.

The NRC inspector reviewed the audits performed by the licensee on the contractors performing analytical measurements for the radiological and nonradiological portions of the environmental protection program. Also, the NRC inspector noted a corporate management audit of the environmental protection program. All audits appeared to be of sufficient depth and their findings had been resolved in a timely manner. The licensee was noted to be using checklists for the audits. Analysis of KG&E radiological environmental samples had been performed by a consultant/contractor, which takes part in the EPA Laboratory Intercomparison Program. The NRC inspector did not note any problems involving contractor services.

No violations or deviations were identified.

8. Exit Interview

The NRC inspector met with the licensee representatives denoted in paragraph 1 at the conclusion of the inspection on May 11, 1984. The NRC inspector discussed the scope and findings of the inspection.

ATTACHMENT B

OPEN ACTION ITEMS LIST

Date: 5/18/84

Ticket No: STN 50-482/84-11

Type Code: A=Allegation
B=Bulletin
C=Circular
D=Deviation
E=50.55(e)
L=LER
M=Miscellaneous
O=Open Item
R=Part 21 Report
T=Temporary Instructions
U=Unresolved Item
V=Violation

1	2	3	4	5	6	7	8
Type Item	Item No.	Report Paragraph	Responsible Section	Module	Description	Inspection Closeout	Closed
0	8411-01	4	T-RP	80521	Meteorological System Reliability		