

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

Report No. STN 50-482/79-17

Docket No. STN 50-482

Category A2

Licensee: Kansas Gas and Electric Company
Post Office Box 208
Wichita, Kansas 67201

Facility Name: Wolf Creek, Unit No. 1

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

Inspection conducted: September 17-20, 1979

Inspector:

W. A. Crossman
for C. R. Oberg, Reactor Inspector, Projects
Section

10/24/79
Date

Approved:

W. A. Crossman
W. A. Crossman, Chief, Projects Section

10/24/79
Date

Inspection Summary:

Inspection on September 17-20, 1979 (Report No. STN 50-482/79-17)

Areas Inspected: Licensee action on previous inspection findings; Essential Service Water (ESW) discharge structure; preparations for placing concrete in the Containment Building; construction activities in the Auxiliary Building; and Ultimate Heat Sink (UHS) dam work. The inspection involved twenty-eight inspector-hours on site by one NRC inspector.

Results: Of the five areas inspected, no items of noncompliance were identified in four areas. One apparent item of noncompliance was identified in one area (infraction - failure to follow procedures in regard to reviewing qualifications of blasting specialist prior to commencement of blasting for UHS discharge structure foundation - paragraph 6).

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DETAILS

1. Persons Contacted

Principal Licensee Personnel

G. L. Koester, Vice President Operations
*G. L. Foutz, Construction Manager
*M. E. Clark, Manager, Site QA
*T. C. Newman, QA Engineer
*R. W. Miller, QA Technician
*D. W. Prigel, Assistant QA Manager, Site

Daniel International

*R. Scott, Construction Manager
*W. E. Hitt, Project Manager
*I. Hussain, Assistant to Project Manager
*V. J. Turner, Project QA Manager
*R. Green, Construction Engineering Manager
*D. J. Dennison, Assistant QC Manager
D. J. Harris, Area Civil Engineer

Others

*R. D. Brown, Site Representative, SNUPPS
*R. Seiple, Resident Geotech, Dames & Moore
D. Blake, Blaster, Clarkson Construction Company

The IE inspector also interviewed other licensee and contractor employees including members of the QA/QC and engineering staffs.

*Denotes those present at the exit interview

2. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance (STN 50-482/79-09); Failure to Conduct Quality Control Inspection. The IE inspector reviewed the applicable work procedures, specification and Quality Control inspection requirements as related to the excavation, construction and testing operations for the UHS dam. The licensee has confirmed ^{1/} that all work on the dam is safety related. The IE inspector verified, by review of records and discussion with licensee representatives, the following:

- a. Dames & Moore has been assigned the responsibility by KG&E to provide services for test blasting and blast monitoring; reviewing

^{1/} KG&E ltr to RIV dated October 1, 1979

and approving blasting plans, reviewing results of blasting, and pre-blast surveillance of operations.

- b. Daniel QC will monitor and test placement of dam materials after approval and mapping of dam foundations by Dames & Moore.
- c. Work procedures as required by Specification A-3824 for Clarkson activities have been issued and approved by Daniel.

This item is considered closed.

(Closed) Unresolved Item (STN 50-482/79-09); The IE inspector reviewed the Clarkson Construction Company Blasting Procedure, B-1 of May 19, 1979, Revision 0. The following was verified:

- a. The referenced procedure has been approved and assigned a control number.
- b. A revision number has been assigned.
- c. Review of the revised procedure was completed on May 19, 1979, by Daniel and Dames & Moore.
- d. The procedure is being followed by Clarkson and Dames & Moore.

This item is considered resolved.

3. Site Tour

The IE inspector walked through various areas of the construction site to observe activities in progress; to inspect the general state of house-keeping; to observe activities in the ESW discharge structure and UHS; and to observe preparations relative to concrete placement in the Reactor Containment Building (RCB) wall.

The IE inspector noted an accumulation of water around, and deterioration of protection for, equipment anchor bolts of major safety-related equipment in the RCB; the temporary storage of stainless steel drain lines; and potential accountability problems relating to storage of several pieces of small pipe. These small pipe pieces had been flooded and were awaiting clean up. (See KG&E Report on Flood Damage in Auxiliary Building dated July 13, 1979)

During the tour, the licensee representatives initiated corrective action on these items. This matter is considered unresolved and will be reviewed in a subsequent inspection. These items were discussed at the exit interview.

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4. Concrete Cylinder Compressive Strength Tests

The IE inspector reviewed information (Summary of Cylinder Compressive Strengths, September 7, 1979) of cylinder compressive tests relating to concrete Mix Design 661-AN, a design strength of 6000 psi at 90 days, which is used in the RCB walls. The average strength of concrete for 90 day cylinders tested was 7927 psi, while 28 day strength tests averaged 6797 psi. The acceptance criteria of ACI 318, Section 4.3.3 for individual tests and average of three consecutive tests is being met.

No items of noncompliance or deviations were identified.

5. Placing of Reinforcing Steel in RCB Wall

The IE inspector observed the preparation for RCB wall, Lift No. 13. In particular, the bending of rebar shear ties beyond tolerances to conform to placement restrictions in the wall was questioned. Bechtel Specification No. 10466-C112(Q) and Daniel Procedure WP-IV-101, "Reinforcing Steel Placement," (Revision 2, May 17, 1979) were reviewed. It was noted that some of the shear ties had been bent beyond the fabrication tolerances specified in the ACI Detailing Manual.

After discussion of this item with the licensee representatives, the IE inspector determined that this should be considered an unresolved item. Bechtel will review the NCR (nonconformance report) issued by QC.

6. Ultimate Heat Sink (UHS)

A tour of the UHS construction area was made by the IE inspector in company with Dames & Moore and KG&E representatives. Specific attention was given to the clearing of material from the bearing surface of the UHS dam. The foundation preparations are reported to be about 80% complete. Dames & Moore personnel were in the process of mapping the area. The IE inspector also examined the work being done in preparation for blasting in the ESW discharge structure area.

Sargent and Lundy Specification A-3854, "Lake Work," paragraph 302.9e requires that the contractor, Clarkson, assign a specialist for using explosives for foundation excavation. His qualifications are subject to the approval of the purchaser (Daniel). The IE inspector determined that the qualifications of the specialist involved in the work had not been approved by the Daniel engineer. A blast had been carried out on the previous Saturday by this specialist. Upon discussion of this matter with licensee representative, blasting work was delayed by Daniel until proper review of the blaster's qualification was completed.

Failure to review the specialist's qualification is not in accordance with 10 CFR 50, Appendix B, Criterion V, in that the requirements of the specifications were not followed.

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7. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of non-compliance, or deviations. Two unresolved items disclosed during the inspection are discussed in paragraphs 3 and 5.

8. Exit Interview

The IE inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on September 20, 1979. The IE inspector summarized the scope and findings of the inspection. The item of noncompliance was acknowledged by the licensee representative.

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