Appendix

US NUCLEAR REGULATORY COMMISSION

NRC Inspection Report: 50-482/84-60 Construction Permit: 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

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

Inspection Conducted: December 16-31, 1984

Inspectors: W. G. Guldemond 2/8/85

W. G. Guldemond, Chief, Resident Inspection Program, Wolf Creek Task Force
(pars. 2, 3, 7, 8, 9, and 13) Date

H. F. Bundy for W. G. Guldemond 2/8/85

H. F. Bundy, Resident Reactor Inspector, Wolf Creek Task Force
(pars. 2, 3, 4, 5, 6, 7, 10, 11, and 12) Date

Approved: L. E. Martin 2/9/85

L. E. Martin, Section Chief, Wolf Creek Task Force Date

Inspection Summary

Inspection Conducted December 16-31, 1984 (Report STN 50-482/84-60)

Areas Inspected: Routine unannounced inspection of licensee actions on previous inspection findings, plant tours, maintenance activities, maintenance procedures, off-normal procedures, preoperational test activities, employee concerns, IE Information Notice 84-84, event followup, and independent inspection. The inspection involved a total of 77 inspection-hours onsite by two NRC inspectors including 21 inspector-hours onsite during off-shifts.

Results: Within the 10 areas inspected, no violations or deviations were identified.

DETAILS

1. Persons Contacted

Principal Licensee Personnel

R. Glover, Startup Manager
F. McLaurin, Assistant Startup Manager
E. Hill, Startup Support Supervisor
G. Sansman, Shift Test Coordinator
T. Mitchell, System Startup Engineer
J. Carson, System Startup Engineer
S. Skow, System Startup Engineer
D. Thuet, System Startup Engineer
O. Maynard, Licensing Supervisor
J. Zell, Operations Superintendent
*M. Williams, Superintendent of Regulatory, Quality and Administrative Services
R. Grant, Director-Quality
*K. Peterson, Licensing
*R. Stright, Licensing
*W. J. Rudolph II, Manager-Quality Assurance
*K. Ellison, Startup Technical Support Supervisor
*C. J. Hoch, Quality Assurance Technician
F. T. Rhodes, Plant Manager
C. C. Mason, Site Director

Other licensee and contractor personnel were also contacted during the course of this inspection.

*The above identified personnel attended the exit meeting held on January 8, 1984.

2. Licensee Actions on Previous Inspection Findings

(Closed) Open Item (482/8449-09): This item documented deficiencies discovered in the following alarm response procedures:

- ALR 00-020B - DG NE01 UV or UF
- ALA 00-024E - NG01 Bus UV
- ALA 00-041A - Seal Injection to RCP Flow LO
- ALA 00-043A - ACC TK A Isolation Valve Not Open
- ALA 00-047E - RWST Level HI/LO
- ALA 00-301-01A - NK01 System Ground

The licensee has prepared changes which correct the observed deficiencies.

(Open) Open Item (482/8449-06): This item documented deficiencies discovered in various surveillance procedures. The licensee has taken action to correct incorrect Technical Specification references in

Procedures STS NB-005, NB-006 and WL-001 as described in paragraphs 7.d, 7.e, and 7.f of the associated report. These parts of the open item are closed.

(Open) Open Item (482/8449-08): This item documented deficiencies discovered in various operating procedures. The licensee has submitted procedure changes which adequately resolve comments on Procedures GEN 00-004, GEN 00-005, GEN 00-006, GEN 00-007, SYS BB-110, SYS EP-200, and SYS AL-120 as discussed in paragraphs 8.c to i of the associated report. These parts of the open item are closed.

No violations or deviations were identified.

3. Plant Tours

During the inspection period, the NRC inspectors toured the plant to make an independent assessment of equipment conditions, plant conditions, security, and adherence to regulatory requirements.

Access to the auxiliary building is now being controlled through the normal access point in the building change area. It was observed on a number of occasions that personnel were not using their access badges properly. In several instances, employees were observed waiting until someone opened the door they wanted to pass through. This practice of "tailgating" is unacceptable and was brought to the attention of the Site Director.

The standing orders, special orders, and required reading logs indicated reviews by personnel are being made in a reasonably timely manner.

No violations or deviations were identified.

4. Maintenance Activities

The NRC inspector observed portions of the work involved in inspecting, cleaning, and testing various 480 VAC switchgear panels, control panels, and transformers. Wolf Creek Work Requests 16003-84 and 16005-84 authorized portions of the work. Among maintenance procedures utilized were MGE-E00P-05, MGE-E00P-07, and MPE-E017Q-07.

The work was being performed efficiently and competently in accordance with appropriate administrative controls and procedures.

No violations or deviations were identified.

5. Maintenance Procedures

The NRC inspector reviewed the following maintenance procedures for technical content, format and approvals:

- ADM 08-813, Rev. 0 - I&C Group Environ. Qual. Maintenance Program
- MCM-M218A02, Rev. 0 - Model PSA 1/4 & 1/2 Snubbers Corrective Maintenance
- MCM-M628Q-01, Rev. 0 - Main Steam Isolation Valve Disassembly/Reas.
- MPE-E017Q-04, Rev. 1 - Ckt Bkr Test for AKR 50 and AKR 30 Elect. Breakers
- MPE-M766Q-01, Rev. 0 - Rod Drive MG AC Power Supply System Generator Inspection
- MPM-M021Q-01, Rev. 0 - Auxiliary Feedwater Pump Turbine Annual Inspection
- MPM-M711Q-02, Rev. 0 - Primary Manway Covers Removal/Installation
- STN-GP-003, Rev. 0 - Equipment Rotation

As a result of this review, the following comments were generated:

a. In several instances, the procedures did not require adequate documentation to assure proper completion of the inspection or work. For instance, when performing complex assembly work, it would be appropriate to document that the work was performed in proper sequence and record torque settings of bolts and critical clearance measurements for moving parts. This level of documentation was not required in the procedures reviewed. This concern will be tracked as an unresolved item. (482/8460-01)

b. MPM-M711Q-02 - In precaution 3.4, reference is made to a cleaning solvent which should be controlled under the provisions of Administrative Procedures ADM 13-102 and/or ADM 04-030. If this is the case, appropriate reference should be made and required permits specified. This comment will be tracked as an open item. (482/8460-02)

c. The licensee was advised of other minor discrepancies discovered.

No violations or deviations were discovered.

6. Off-Normal Procedures

The NRC inspector reviewed the following off-normal procedures for technical content, format, and approvals:

- OFN 00-005, Rev. 1 - RCP Malfunctions
- OFN 00-007, Rev. 0 - RCS Leakage High
- OFN 00-011, Rev. 0 - Dropped or Misaligned Rod and Realignment
- OFN 00-015, Rev. 0 - Loss of Shutdown Cooling (RHR)
- OFN 00-019, Rev. 0 - Loss of Instrument Air
- OFN 00-020, Rev. 0 - Loss of 5 V DC Bus NK01, NK02, NK03, and NK04
- OFN 00-021, Rev. 0 - Loss of Vital 120 V AC Inst Buses
- OFN 00-006, Rev. 0 - High Reactor Coolant Activity
- OFN 00-012, Rev. 0 - Rod Control Malfunctions

As a result of this review, the following comments were generated:

OFN 00-005, step c.2 does not address specific actions required by Technical Specification 3.4.6.2 in the event the reactor coolant pump controlled leakage limit is exceeded. These actions should be addressed. Step 21.c should include component cooling water return Containment Isolation Valve EG HV-62 in the list of valves which should be open. These comments will be tracked as an open item. (482/8460-03) The licensee was advised of typographical errors and other minor discrepancies.

No violations or deviations were identified.

7. Preoperational Test Activities

The NRC inspector reviewed data and observed portions of the following preoperational tests:

- SU3-GP01, Primary Reactor Containment Integrated Leakage Rate Test
- SU3-EM02, Rev. 2, Safety Injection Flow Verification
- SU3-SA03, Engineered Safeguards Verification Test

The tests were being performed and documented per test and administrative procedure requirements; however, the inspector expressed a concern regarding the clarity of documentation for SU3-EM02, Rev. 2. Test Discrepancy (TD) 006 stated that Valve EJ-HCV607 was full open in step 7.8.22 although it appeared the more serious deficiency was the fact that the obtained flow (2500 gpm) did not meet the acceptance criteria of 3200 ± 100 gpm. A similar record was made for step 7.8.29. The system startup engineer (SSE) stated he would clarify the TDs. For the same test, no chronological test log entries were made for an entire shift while testing was in progress. Although, it appears this did not violate administrative requirements, it made it somewhat difficult for the inspector to interpret test data.

Because SU3-SA03 is incomplete, findings relating to this test will be discussed in a future report.

No violations or deviations were identfiied.

8. Structural Integrity Test (SIT) Witnessing

During the inspection period, the inspector witnessed selected portions of the containment SIT as described below to assess compliance with procedural requirements and monitor equipment performance.

a. Pretest Preparation: Prior to containment pressurization the inspector reviewed the status of prerequisite completion with the following comments:

(1) An unapproved copy of Temporary Change Notice (TCN) No. 1 was attached to the controlled copy of the SIT Procedure (SU3-GP02).

The approved copy of TCN No. 1 was attached when this was brought to the attention of the test director.

(2) Prerequisite 6.14 requires that all known open items pertaining to the test be reviewed and a determination made as to their impact on the test. The step requires that the date of the open item list used in this determination be recorded. The prerequisite was signed off by both the startup engineer and a Level III engineer without entering the required date. This was corrected by the test director when pointed out by the inspector.

(3) The zero psig crack inspections were recorded on information copies of the crack maps which were signed by the mappers and the witnessing quality control (QC) inspector as appropriate. The map data was transferred to offical copies of the crack maps in the procedure, but signatures were not. The information copies of the maps were not attached to the procedure but were available. The test director initiated steps to have this discrepancy resolved when pointed out by the inspector.

(4) The inspector examined a filter sample used to establish the quality of compressed air to be used in containment pressurization and found it acceptable.

(5) The inspector verified that personnel access safety barriers had been established as required by the test procedure.

(6) The inspector verified that data recording/acquisition instrumentation was properly calibrated.

b. Test Performance: The inspector monitored test performance periodically throughout the pressurization cycle with the following comments:

(1) Containment pressurization rate was approximately 4 psig hour, well below the specified maximum value of 6 psig hour.

(2) The licensee did not confirm that the 5 psig data was obtained in the specified pressure range of 5.0-5.3 psig; however, based on the time to obtain the data and the average pressurization rate, adequate assurance was provided that the specified pressure range was not exceeded. The inspector expressed concern to the licensee over the failure to verify conformance with data taking requirements. The licensee acknowledged the inspector's concern and agreed that those requirements would be verified.

(3) During the 40 and 69 psig hold points, the inspector monitored portions of the containment crack mapping at the equipment hatch and at ground level 28 degrees north of the equipment hatch. Contractor personnel performing the mapping were familiar with

the procedural requirements and acceptance criteria. QC inspection personnel were present as required.

No violations or deviations were identified.

9. Containment Integrated Leak Rate Test (CILRT) Witnessing

During the inspection period, the inspector witnessed selected portions of the CILRT as described below to assess compliance with procedural requirements and monitor equipment performance.

a. Pretest Preparation: Prior to containment pressurization the inspector reviewed that status of prerequisite completion including containment inspection, valve lineup, and test instrument calibration/checkout.

(1) The procedure indicated that all portable compressed gas cylinders had been either depressurized or removed from containment but that a permanent nitrogen accumulator pressurized to 213 psig remained in containment. When the inspector questioned test personnel how potential leakage from the accumulator was to be accomodated, they stated that after the ILRT accumulator pressure would be checked and any decrease would be factored into the measured containment leakage rate. This is acceptable, however, it was noted that there were no formal requirements in the procedure to accomplish this. The licensee subsequently depressurized the accumulator prior to the start of the test.

(2) Valve lineups were reviewed against system prints and draft Technical Specifications and found acceptable.

No violations or deviations were identified.

10. Licensee Employee Concerns

On December 19, 1984, three KG&E system startup engineers (SSE) expressed a concern to the NRC inspector regarding failure to communicate approved Wolf Creek Work Requests (WCRWs) to the cognizant SSE for systems in preoperational test status. Investigation by the NRC inspector revealed that this failure to communicate had occurred on at least two occasions. It was also established in discussions with the Plant Manager, Assistant Startup Manager, Operations Superintendent, and other members of licensee management that if existing administrative controls were properly implemented, the cognizant SSE would receive timely notification of any work approved for his system.

Licensee management expressed intentions to comprehensively implement these administrative controls.

The above information was related to one of the concerned startup engineers on December 20, 1984. He expressed satisfaction with the commitment made by licensee management and stated that he would relay this information to the other concerned startup engineers. He also stated that

he was now being informed of intended work on his system and presently had no further concerns on this issue.

11. IE Information Notices

The NRC inspector reviewed selected IE Information Notices (IEN) for scope and potential applicability to the Wolf Creek Generating Station. Additional information was requested from the licensee regarding IEN 84-84 which concerns deficiencies in ferro-resonant transformers. This request will be tracked as an open item which must be satisfied prior to fuel load. (482/8460-04)

12. Event Followup

The NRC inspector reviewed Wolf Creek Event Reports 84-120, Electrical Fire in Containment Emergency Escape Hatch, and 84-121, Improper Jumper Installed on Relay, to determine:

- Adequacy of response
- Adequacy of analysis to determine cause
- Adequacy of corrective action to prevent recurrence

The reports were adequate.

No violations or deviations were identified.

13. Independent Inspection

a. By letter dated December 14, 1984, from N. A. Petrick, Standardized Nuclear Unit Power Plant System (SNUPPS) to Mr. H. R. Denton, NRC, SNUPPS transmitted the Justification for Interim Operation (JIO) for the Seismic Qualification of Operator Interface Modules (ESE-12A) based on recently acquired test data and commitments to change the mounting configuration and recalibrate the subject units prior to exceeding 5 percent power at Wolf Creek. Completion of the committed-to actions will be tracked as an open item which must be closed prior to exceeding 5 percent power. (482/8460-05)

b. During a preliminary inspection of the licensee's power ascension test program procedures, it was identified that the licensee was apparently deviating from a commitment made in Section 14.2.5 of the Final Safety Analysis Report (FSAR) to review and approve initial startup test procedure results at 25, 50, and 75 percent power plateaus prior to proceeding to the next plateau. By letter dated December 21, 1984, the licensee clarified their intentions to the NRC stating that test results would be reviewed and approved prior to exceeding a power level at which those results became relevant with respect to safety and that other test results would receive a preliminary review at the plateaus as described in the FSAR. NRC approval of this position was requested. Receipt of this approval

will be tracked as an open item which must be closed prior to fuel loading. (482/8460-06)

c. By letter dated December 12, 1984, the licensee requested the approval of the Office of Nuclear Reactor Regulation (NRR) to defer completion of preoperational testing of certain process radiation monitoring instrumentation until after fuel load but prior to initial criticality. The inspector reviewed this request and determined that it was consistent with the operability requirements of the most recent revision to the draft Technical Specifications; however, it does represent a deviation from a previous FSAR commitment and will require NRR approval. Receipt of this approval will be tracked as an open item which must be closed prior to fuel load. (482/8460-07)

14. Open Items

Open items are matters which have been discussed with the licensee, which will be reviewed further by the inspector, 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 5, 6, 12, and 13.

15. Unresolved Items

An unresolved item is a matter about which more information is required in order to determine whether it is an acceptable item, a violation, or a deviation. One unresolved item is discussed in paragraph 5.a of this report.

16. Exit Meeting

The NRC inspector met with licensee personnel denoted in paragraph 1 to discuss the scope and findings of this inspection on January 8, 1985. The licensee acknowledged the findings.