APPENDIX

U. S. NUCLEAR REGULATION COMMISSION
REGION IV

Inspection Report: 50-482/92-26

Operating License: NPF-42

License: Wolf Creek Nuclear Operating Corporation
P.O. Box 411
Burlington, Kansas 66839

Facility Name: Wolf Creek Nuclear Generating Station

Inspection At: Burlington, Kansas

Inspection Conducted: August 31 through September 4, 1992

Inspector: D. L. Kelley, Reactor Inspector
M. E. Murphy, Reactor Inspector

Approved: _____ 10/2/92
C. E. Gagliardo, Chief, Test Programs Section, Date
Division of Reactor Safety

Inspection Summary

Areas Inspected: Routine, announced inspection of the surveillance testing and calibration control program, surveillance procedures and records, previously identified open inspection item, and licensee event report followup.

Results:

- The licensee's surveillance program was considered strong (paragraph 2.1.2).
- The licensee's self-initiated improvements to the surveillance testing database were considered an asset (paragraphs 2.1.2).
- Scheduling and tracking of surveillance testing activities appeared to be good (paragraph 3.2).
- Several surveillance tests had been missed during the current cycle, but overall performance appeared to be satisfactory (paragraph 3.2).

Summary of Inspection Findings:

- Open Item (482/9107-01) was closed (paragraph 4

- Licensee Event Reports 91-011 and 92-005 were closed (paragraph 5).

Attachments:

- Attachment 1 - Persons Contacted and Exit Meeting
- Attachment 2 - Documents Reviewed

DETAILS

1 PLANT STATUS

During this inspection period, the plant was in Mode 1 at 100 percent power.

2 SURVEILLANCE TESTING AND CALIBRATION CONTROL PROGRAM (61725)

The purpose of this portion of the inspection was to ascertain whether the licensee had developed a program for the control and evaluation of Technical Specification required surveillance testing and calibration. Also included in the inspection was the licensee's control of safety-related instrumentation not specifically controlled by Technical Specifications.

2.1 Surveillance Testing Program (61725)

The inspector reviewed the licensee procedures (Attachment 2, Documents 1 and 3-6), which control the surveillance testing program. The inspector also discussed the surveillance testing program with the Surveillance Coordinator.

2.1.1 Discussion

The licensee's administrative procedures for implementing the Technical Specification surveillance testing requirements were found to be sufficiently detailed to provide positive control of plant surveillance activities. The procedures addressed areas such as test frequency, group responsibility, test status and scheduling. Additional instructions were included for reviewing, evaluating, and reporting failures, and for taking corrective actions. Surveillance scheduling, tracking, and completion status were accomplished by computer. Input to the database was restricted, however, to preserve its integrity. Read only access was provided for group scheduling purposes. A surveillance test routing sheet accompanied the surveillance test on which the test completion data was documented. Each test deficiency was evaluated to determine if it constituted a Technical Specification failure. If a Technical Specification failure was identified, appropriate actions for correcting the problem and for satisfying reportability requirements were initiated.

The inspector reviewed the last four Technical Specification changes and found only one surveillance change. The requirement for reactor coolant RTD by-pass flow rate surveillance testing during refueling outages had been removed from Table 4.3.1 to reflect the removal of the by-pass loop.

During discussions with the surveillance coordinator, the inspector found that the licensee had initiated steps to improve the integrity of the surveillance testing database by limiting input access and changing the manual editing process to a program driven editing process. These steps were licensee initiatives and indicated a proactive improvement process.

The inspector observed that the licensee had scheduled the next surveillance test performance date from the test performance date rather than from the last scheduled due date. While this had not resulted in any reduction in the surveillance tests being performed in a given interval (ie, 12 tests in a 1-year period), it was a less conservative approach to scheduling.

2.1.2 Conclusion

The inspector concluded that the licensee had a viable and strong program for the control of surveillance activities. The licensee appeared to be proactive in up grading of the surveillance testing control process and had initiated improvements in the surveillance testing database.

2.2 Calibration Control Program (61725)

During this portion of the inspection, the inspector examined the licensee's program for control and evaluation of the calibration of safety-related instrumentation that were not specifically controlled by Technical Specification surveillance requirements.

2.2.1 Discussion

The inspector reviewed the procedure (Document 2) for controlling, scheduling, and tracking the licensee's calibration program. The list of instrumentation and schedules were generated by the instrumentation and control department using a computer. The test frequency was based on commitments, manufacturer recommendations, engineering judgement, and calibration history. The calibrations were carried out using the same administrative requirements as established for the Technical Specification surveillances. The schedules were generated monthly and included a 2-month advanced look. The testing status was tracked by the instrumentation and control manager on a monthly basis. The test procedures and test results were approved within the instrumentation and control department.

2.2.2 Conclusions

The inspector concluded that the calibration control program was good and had been well documented and coordinated.

3 SURVEILLANCE PROCEDURES AND RECORDS (61700)

This inspection was performed to determine that the licensee was conducting and documenting the surveillances of safety-related systems and components in accordance with approved procedures as required by the Technical Specifications.

3.1 Discussion

In conjunction with the administrative procedures that constituted the surveillance program at Wolf Creek, the licensee had developed a computerized "Surveillance Tech Spec Report" for ready reference. This report correlated the Technical Specification surveillance test paragraphs with the surveillance test procedures. The report also identified the performance frequency, applicable plant modes, and the group responsible for performing the tests. The inspector used an August 31, 1992, copy of this report to identify a list of completed surveillance tests for review. Attachment 2 (Documents 7-31) were the surveillance test procedures reviewed. The procedures were correlated to the applicable Technical Specification paragraph. The selected test packages included tests in the areas of reactivity control and power distribution, instrumentation, the reactor coolant system, emergency core cooling system, containment systems, and the plant and electrical power systems.

Review of the completed test data packages and the associated procedures determined that the tests were in conformance with Technical Specification requirements. The procedures contained the prerequisites and preparations for the specified test. Applicable acceptance criteria for the test were included. Instructions to ensure that systems or components were restored to operation following testing were provided as applicable. The completed tests were reviewed as required by the licensee's administrative procedure. The tests were performed within the time frequencies specified and appropriate action was taken for any item failing the acceptance criteria.

There were five reported incidents of missed surveillances during this cycle. These events were reported in Licensee Event Reports 91-010, 91-011, 92-005, 92-008, and 92-012. The inspector reviewed these reports and determined that the causes were varied and did not appear to be indicative of a programmatic breakdown. The licensee's root cause analyses appeared thorough and comprehensive. Proposed corrective actions were found to be appropriate. Corrective actions for Reports 91-011 and 92-005 had been satisfactorily completed and are closed in praragph 5 of this report.

3.2 Conclusions

The administrative controls in place for scheduling and tracking surveillance testing activities appeared to be good. Surveillance test procedures contained the appropriate elements and appeared to correlate with the Technical Specification requirements. Although the licensee had identified several missed surveillances during this cycle, there were no apparent programmatic problems, and the overall surveillance test performance appeared satisfactory.

4 FOLLOWUP (92701)

4.1 (Closed) Open Item (482/9107-01): Accuracy of the Technical Specification to Procedure Number Matrix

During the performance of NRC Inspection 50-482/91-07, the inspectors identified several errors in the Technical Specification to procedure number matrix. The discovery of these errors caused the inspectors to question the accuracy of the matrix. The licensee committed to perform an audit of the matrix to correct any deficiencies and verify the accuracy of the matrix.

The inspector reviewed licensee Audit Report TE: 50140-K355, and noted that one of the items included in the scope of the audit was a followup of the open item in NRC Inspection Report 50-482/91-07. The audit item was to verify that the audit of the surveillance testing master database had been completed, and that any identified deficiencies had been corrected and steps had been taken to prevent recurrence. The results of the audit were that the master surveillance database was complete, identified deficiencies had been corrected and the applicable administrative procedures had been revised. The inspector reviewed the database and found no discrepancies. The inspector also noted during the review of the administrative procedures controlling the surveillance testing activities that appropriate controls for the surveillance test master database were included.

5 ONSITE REVIEW OF LICENSEE EVENT REPORTS (92700)

5.1 (Closed) Licensee Event Report 482/91-011: Failure to Verify Two Containment Penetration Drain Valves Were Locked Closed

The licensee had revised Surveillance Test Procedure STS GP 007 to ensure that Valves EJV187 and EJV189 were verified locked closed in accordance with the requirements of Technical Specification Surveillance 4.6.1.1.a.

5.2 (Closed) Licensee Event Report 482/92-005: Late Surveillance Test Performance Caused By Error In Completing Status Chart

The licensee had initiated training for the operations personnel qualified to serve as supervising operators to reemphasize the importance of properly updating the R1 status charts. The surveillance coordinators duties had been modified such that he was now able to devote full time to surveillance scheduling and tracking. Surveillance Test Procedure STS EG 201 had been revised to specify a temperature setpoint of 150 degrees to ensure that the valves were stroked fully during surveillance testing.

ATTACHMENT 1

1 PERSONS CONTACTED

WCNOC

*J. Bailey, Vice President, Operations
M. Covey, Supervisor, Results Engineering
*D. Gerrelts, Manager, Instrumentation and Control
R. Hagan, Vice President, Nuclear Assurance
R. Holloway, Manager, Maintenance and Modifications
K. Hughes, Supervisor, Training
*W. Lindsay, Manager, Quality Assurance
*J. Lutz, Licensing Engineer
*O. Maynard, Director, Plant Operations
*K. Moles, Manager, Regulatory Services
*T. Morrill, Manager, Radiation Protection
*W. Norton, Manager, Technical Support
G. Pendergrass, Supervisor, Results Engineering
*C. Rich, Jr., Supervisor, Electrical Maintenance
*R. Schmidt, Surveillance Coordinator
*L. Stevens, Supervising Engineer, Nuclear Safety Engineering
*J. Weeks, Manager, Operations
*S. Wideman, Supervisor, Licensing
*M. Williams, Manager, Plant Support

NRC

*G. Pick, Senior Resident Inspector

The inspectors also interviewed other personnel during the inspection.

*Denotes attendees at the exit meeting held on September 4, 1992.

2 EXIT MEETING

The inspection scope and findings were summarized in an exit meeting on September 4, 1992. The licensee did not identify as proprietary any of the materials provided to, or reviewed by, the inspectors during this inspection.

ATTACHMENT 2

DOCUMENTS REVIEWED

ADMINISTRATIVE PROCEDURES

1. ADM 02-300, "Surveillance Testing," Revision 18
2. ADM 08-807, "I&C Group Surveillance Testing," Revision 8
3. ADM 02-311, "Surveillance Test Master Cross-Reference and Review Requirements," Revision 6
4. ADM 02-312, "Mode Change Checklist and Surveillance Tracking Program," Revision 6
5. ADM 01-200, "TS Change Review," Revision 2
6. ADM 08-806, "I&C Group Calibration of Process Instrumentation and Special Maintenance," Revision 10

	SURVEILLANCE TEST PROCEDURE	TECHNICAL SPECIFICATION PARAGRAPH
7.	STS RE 004	4.1.1.1.1.A
8.	STS RE 005	4.1.1.1.2
9.	STS KJ 001A	4.1.2.2.B
10.	STS KJ 001B	4.1.2.2.B
11.	GEN 00 003	4.1.3.5.A
12.	STS CR 001	4.1.3.6
13.	STS RE 009	4.2.2.2.A
14.	STS CR 001	4.2.3.3
15.	STS IC 719	4.3.2.2-13
16.	STS IC 530D	4.3.3.5.1-01
17.	STS ML 001	4.3.3.5.1-04
18.	STS RE 014	4.3.3.6-02
19.	STS CR 001	4.3.3.7
20.	STS MT 001	4.4.3.2
21.	STS BG 002	4.5.2.B.1
22.	STS EJ 001	4.5.2.C.1
23.	STS GP 007	4.6.1.1.A
24.	STS AL 101	4.7.1.2.1.A.1
25.	STS AL 103	4.7.1.2.1.A.2
26.	ADM 02 102	4.7.1.2.1.A.3
27.	STS AL 003	4.7.1.2.1.A.4
28.	ADM 04 020C	4.7.1.4-1
29.	STS NB 005	4.8.1.1.1
30.	STS KJ 005A	4.8.1.1.2.A.1
31.	STS KJ 005B	4.8.1.1.2.A.2