



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-8064**

May 3, 2001

Otto L. Maynard, President and  
Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
P.O. Box 411  
Burlington, Kansas 66839

**SUBJECT: WOLF CREEK GENERATING STATION - NRC INSPECTION  
REPORT 50-482/01-05**

Dear Mr. Maynard:

On March 16, 2001, the NRC completed a team inspection at your Wolf Creek Generating Station. The enclosed report documents the inspection findings, which were discussed preliminarily on March 16, 2001, with Mr. Britt McKinney and other members of your staff. On March 28, 2001, we conducted a telephonic exit meeting with Mr. Keith Harvey and other members of your staff to inform your staff of the results of the in-office review following the team's departure from the site.

This inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, compliance with the Commission's rules and regulations, and the conditions of your license. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

On the basis of the sample selected for review, there were no findings of significance identified during this inspection. The team concluded that problems were properly identified, evaluated and resolved within the problem identification and resolution programs.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

Sincerely,

**/RA/**

Anthony T. Gody, Chief  
Operations Branch  
Division of Reactor Safety

Wolf Creek Nuclear Operating Corporation -2-

Docket: 50-482  
License: NPF-42

Enclosures:  
NRC Inspection Report  
50-482/01-05

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**ENCLOSURE**

U.S. NUCLEAR REGULATORY COMMISSION  
REGION IV

Docket: 50-482  
License: NPF-42  
Report No.: 50-482/01-05  
Licensee: Wolf Creek Nuclear Operating Corporation  
Facility: Wolf Creek Generating Station  
Location: 1550 Oxen Lane, NE  
Burlington, Kansas  
Dates: March 12-16, 2001  
Team Leader: G. Johnston, Senior Operations Engineer  
Inspector: T. McKernon, Senior Operations Engineer  
M. Murphy, Senior Operations Engineer  
R. Kopriva, Senior Project Engineer  
L. Ellershaw, Senior Reactor Engineer  
Approved By: A. Gody, Chief  
Operations Branch  
Division of Reactor Safety

## SUMMARY OF FINDINGS

[IR 05000482-01-05; on 03/12-03/16/2001; Wolf Creek Nuclear Operating Corporation; Wolf Creek Generating Station; Identification and Resolution of Problems.

The inspection was conducted by three regional senior operations engineers, one regional senior project engineer, and one senior reactor engineer. The inspection identified no issues having safety significance. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter 0609, "Significance Determination Process." Findings for which the Significance Determination Process does not apply are indicated by "No Color" or by the severity level of the applicable violation. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described at its Reactor Oversight Process website at <http://www.nrc.gov/NRR/Oversight/index.htm>.

### **Cornerstone: Identification and Resolution of Problems**

The licensee adequately identified problems and put them into the corrective action program. The licensee appropriately used risk in determining the extent to which individual problems would be evaluated and in establishing schedules for implementation of corrective actions. Licensee audits and assessments were effective in identifying problems. Based on the interviews conducted during this inspection, workers at the site were comfortable placing safety issues into the problem identification and resolution program. Corrective actions, when specified, were implemented in a timely manner. With a few exceptions identified by the licensee, corrective actions to prevent recurrence of conditions adverse to quality were generally effective (Sections 40A2, 40A4).

## Report Details

### 4OA2 Identification and Resolution of Problems

#### a. Effectiveness of Problem Identification

##### (1) Inspection Scope

The team reviewed items selected across the seven cornerstones of safety to determine if problems were being properly identified, characterized, and entered into the corrective action program for evaluation and resolution. Specifically, the team reviewed 79 selected performance improvement request (PIR) reports that had been opened or that related to issues of regulatory noncompliance since March 1, 2000. The team also reviewed 8 licensee audit reports, 25 self-assessment reports, 1 trend report, 7 plant evaluation program reports, and system health reports. The team compared the audit and assessment results with self-revealing and NRC-identified issues to determine the effectiveness of the audits and self-assessments.

The team evaluated the PIR reports and other documents to determine the licensee's threshold for identifying problems and entering them into the corrective action program. Also, the licensee's efforts in establishing the scope of problems were evaluated by reviewing pertinent work requests, engineering dispositions, self-assessment results, action plans, and results from surveillance tests and preventive maintenance tasks. The PIR reports and other documents listed in the Attachment were used to facilitate the review.

The team also conducted interviews with plant personnel to identify other processes by which problems and issues could be identified.

##### (2) Issues and Findings

The team determined that the licensee was effective at identifying problems and entering them into the corrective action program. This was evidenced by the relative few deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee during the review period. Licensee audits and assessments were of good depth and identified issues similar to those that were self-revealing or raised during previous NRC inspections. Also, during this inspection there were no instances identified where conditions adverse to quality were being handled outside the corrective action program.

#### b. Prioritization and Evaluation of Issues

##### (1) Inspection Scope

The team reviewed 79 PIR reports and supporting documentation, including an appropriate analysis of the cause of the problem, to ascertain whether the licensee's evaluation of the problems identified and considered the full extent of conditions, generic implications, common causes, and previous occurrences. In addition, the team reviewed the licensee's evaluation of selected industry experience information, including

operating event reports and NRC and vendor generic notices, to assess if issues applicable to Wolf Creek Generating Station were appropriately addressed. The team also observed the Corrective Action Review Board meeting on March 15, 2001, to assess the board's review of corrective actions. Specific items reviewed are listed in Attachment to this report.

(2) Issues and Findings

Based on a review of the licensee's records, the team concluded that the licensee effectively prioritized and evaluated issues including significant conditions adverse to quality. The team considered the review conducted by the Corrective Action Review Board on March 15, 2000, of conditions adverse to quality appropriate and thorough in assessing prioritization of corrective actions. The team identified no findings related to prioritization and evaluation of issues.

c. Effectiveness of Corrective Actions

(1) Inspection Scope

The team reviewed 79 PIR reports, audits, and self-assessments to verify that those corrective actions, related to the issues, were identified and implemented in a timely manner commensurate with safety, including corrective actions to address common cause or generic concerns. The team also interviewed plant personnel to independently verify and assess the effectiveness of corrective actions implemented by the licensee. A listing of specific documents reviewed during the inspection is included in the Attachment to this report.

(2) Issues and Findings

The team concluded that, in general, the licensee's corrective actions were effective. The licensee's use of designated PIR screening authorities that possess broad experience in the organization, was central to the licensee's effectiveness in ensuring proper prioritization. The licensee's ongoing program to address common cause factors regarding human performance appeared to be effective; however, because of the relative short period the effort has been in place, no overall conclusion as to the effectiveness of the effort could be ascertained. The team observed, from a review of the licensee's monitoring of corrective actions that the time to closure of corrective actions identified in PIRs has steadily increased over the previous two quarters. Time to closure was at an average age of corrective actions of 224 days after a decreasing trend from the first two calendar quarters of FY 2000. These observations by the team mirror some of the findings in the licensee's common cause self-evaluation.



d. Assessment of Safety Conscious Work Environment

(1) Inspection Scope

The team interviewed 23 individuals from the licensee's staff, which represented a cross-section of functional organizations and supervisory and non-supervisory personnel. These interviews assessed whether conditions existed that would challenge the establishment of a safety conscious work environment.

(2) Issues and Findings

Based on interviews, the team identified no findings related to the safety conscious work environment. The team concluded, based on information collected from these interviews, that employees were willing to identify issues and recognized their responsibility to enter safety issues into the corrective action program.

4OA6 Meetings, including Exit

The team debriefed Mr. Britt McKinney, Vice President Plant Operations and Plant Manager, and members of the licensee's staff on the preliminary inspection findings at the conclusion of the onsite inspection on March 16, 2000. The licensee's management acknowledged the findings presented.

A telephonic exit meeting was held on March 28, 2001, with Mr. Keith Harvey, Manager, Organizational Performance, and other licensee staff members, during which the lead inspector characterized the results of the in-office review following the team's departure from the site.

The team asked the licensee's management whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

## ATTACHMENT

### KEY POINTS OF CONTACT

#### Licensee

K. Harris, Manager, Licensing and Corrective Action  
K. Harvey, Manager, Organizational Performance  
J. Johnson, Manager, Resource Protection  
R. Kerving, Supervisor, Corrective Action  
B. McKinney, Vice President Plant Operations and Plant Manager  
C. Younie, Manager, Operations  
C. Warren, Vice President Operations Support

#### NRC

F. Brush, Senior Resident Inspector

### DOCUMENTS REVIEWED

The following documents were selected and reviewed by the team to accomplish the objectives and scope of the inspection and to support any findings:

#### Procedures:

AP 28E-006 "Common Cause Analysis" Revision 4  
AF 28B-005 "Hardware Failure Analysis" June 21, 2000  
AP-28A-001 "Performance Improvement Request" Revision 16  
AI 18A-003 "Preparation, Maintenance and Security of Employee Concerns Files" Revision 0

#### Quality Evaluation Audits:

K-528 - Engineering, January 25-June 30, 2000  
K-529 - Plant Maintenance, January 16-June 16, 2000  
K-531 - Corrective Action, February 2-June 30, 2000  
K-542 - Plant Maintenance, July 16-December 16, 2000  
K-543 - Engineering, July 17-December 31, 2000  
K-544 - Corrective Action, July 1, 2000-January 4, 2001  
K-537 - Security / Access Authorization / Fitness For Duty / Personnel Access Data System, December 21, 2000  
K-546 "Emergency Preparedness" October 24, 2000

Performance Improvement Requests:

1996-1081	1999-3865	2000-1543	2000-2484	2000-3233
1996-1150	2000-0561	2000-1570	2000-2486	2000-3263
1997-1224	2000-0569	2000-1620	2000-2486	2000-3385
1998-0252	2000-0713	2000-1631	2000-2575	2000-3533
1998-0659	2000-0781	2000-1644	2000-2578	2000-3655
1998-0674	2000-0808	2000-1830	2000-2727	2000-3656
1998-1008	2000-0900	2000-1893	2000-2908	2000-3657
1998-1224	2000-0912	2000-1939	2000-2992	2000-3782
1999-1061	2000-0930	2000-2186	2000-3001	2001-0057
1999-1622	2000-0931	2000-2198	2000-3112	2001-0219
1999-1986	2000-0969	2000-2271	2000-3133	2001-0271
1999-2531	2000-1105	2000-2341	2000-3194	2001-0311
1999-2595	2000-1177	2000-2359	2000-3211	2001-0455
1999-3112	2000-1290	2000-2405	2000-3225	2001-0460
1999-3292	2000-1475	2000-2439	2000-3225	2001-0491
1999-3687	2000-1476	2000-2462	2000-3231	

Other Documents:

Self Assessment SEL 00-011 "Effectiveness of the Dosimetry and Internal Exposure Programs"  
May 18, 2000

Self Assessment SEL 99-18 Common Cause Analysis

RF-11 Personnel Contamination Incident list as of March 12, 2001

Non-Outage Personnel Contamination Incident list as of March 12, 2001

Engineering Disposition 09118 "Margin Optimization for Motor Operated Valves EJHV8804A  
and EJHV8804 B," Revision 1

Operator Workaround List as of March 2, 2001

NSRC Trend Report June 2, 2000

INPO "Evaluation of Wolf Creek Generating Station" March 1999

Licensee Event Report 2000-004-00, Failure to perform Technical Specification  
Surveillance 3.8.1.3

Plant Evaluation Program Reports:

OB 00-1057 Corrective Action  
OB 00-1086 Corrective Action  
OB 00-1103 PIR Process Evaluation  
OB 99-1157 Evaluation of the Physical Protection Performance Indicator Cornerstone  
OB 00-1200 Security Contingency Plan, Physical Security Plan, and Procedure Review  
OB 00-1223 Security Facilities / Equipment and Conduct of Security and Safeguards Activities  
OB 01-1014 Timeliness of WCNOG's Corrective Action Program

Radiation Work Permits:

2000-0045, Revision 1	2000-3220, Revision 2
2000-0014, Revision 1	2000-4461, Revision 2
2000-2600, Revision 2	2000-4209, Revision 0

Work Orders

00-222608-000	98-127952-002	00-222308-002
00-222608-001	00-222308-000	00-222308-003
00-222607-000	00-222308-001	00-222308-004
00-222607-001		

INFORMATION REQUESTED

FOR

WOLF CREEK PIR INSPECTION March 12-16, 2001

- Current revisions of the procedures governing the corrective action program at Wolf Creek.
- Any new procedures issued since January 1, 2000 which directly relate to the corrective action program, deficiency reporting and resolution, root cause evaluation/determination, operator work-arounds, work requests, engineering requests, temporary modifications, procedure change requests, training needs request/evaluation
- A listing and index of all corrective action documents issued since February 3, 2000, sorted by department and chronologically
- A listing of all corrective actions initiated prior to February 3, 2000 which remain open
- Copies of all PIRs relating to significant conditions adverse to quality
- A list of all root cause analyses completed or in progress since February 3, 2000

- Copies of all audit and assessment reports issued during since February 3, 2000
- Copies of all trend reports and other metrics related to corrective action issued since February 3, 2000
- Predictive Performance Program Summaries issued since February 3, 2000
- System health reports for safety related systems issued since February 3, 2000
- A listing of plant safety issues identified through the employee concerns program since February 3, 2000
- Listings of action items generated by the safety review committees since February 3, 2000