UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-3064

FEB 11 1994

Docket: 50-482
License: NPF-42

Wolf Creek Nuclear Operating Corporation
ATTN: Neil S. Carns, President and
Chief Executive Officer
P.O. Box 411
Burlington, Kansas 66839

SUBJECT: NRC INSPECTION REPORT 50-482/93-29

Thank you for your letter dated January 28, 1994, in response to our letter and Notice of Violation dated December 29, 1993. We have reviewed your reply and find it responsive to the concerns raised in our Notice of Violation. We will review the implementation of your corrective actions during a future inspection to determine that full compliance has been achieved and will be maintained.

Sincerely,

A. Bill Beach, Director
Division of Reactor Projects

cc:
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RIV:DRP/B	C:DRP/B	D:DRP		
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WOLF CREEK
NUCLEAR OPERATING CORPORATION

Neil S. "Buzz" Carns
President and
Chief Executive Officer

January 28, 1994
WM 94-0012

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Washington, D. C. 20555

Reference: Letter dated December 29, 1993, from A. B. Beach, NRC, to N. S. Carns, WCNOC
Subject: Docket No. 50-482: Reply to Notices of Violation 482/9329-02 and 482/9329-03

Gentlemen:

Attached is Wolf Creek Nuclear Operating Corporation's (WCNOC) "Reply to Notices of Violation 482/9329-02 and 482/9329-03" which were documented in the Reference (NRC Inspection Report 50-482/93-29). Violation 482/9329-02 concerns two examples of clearance orders being prematurely restored because guidance was inappropriate to the circumstances. Violation 482/9329-03 concerns corrective actions for a Performance Improvement Request (PIR) that were implemented only for Electrical Maintenance when the corrective actions were applicable to all craft personnel. The NRC identified both incidents as Severity Level IV violations.

If you have any questions concerning this matter, please contact me at (316) 364-8831 ext. 4000 or Mr. K. J. Moles at ext. 4565.

Very truly yours,

Neil S. Carns
President and
Chief Executive Officer

NSC/jad

Attachment

cc: L. J. Callan (NRC), w/a
G. A. Pick (NRC), w/a
W. D. Reckley (NRC), w/a
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Reply to Notices of Violation 482/9329-02 and 482/9329-03

Violation 482/9329-02: Guidance Inappropriate to the Circumstance: Two examples of clearance orders being prematurely restored.

Findings:

Technical Specification 6.8.1.a states that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, dated February 1978. Regulatory Guide 1.33, Appendix A, Item 1.c, requires administrative procedures for equipment control (e.g., locking and tagging). This is accomplished, in part, by Procedure ADM 02-100, "Clearance Order Procedure," Revision 28.

Procedure ADM 02-100, Step 7.1.5.2, allows clearance orders to be accepted and released by individuals acting in the capacity of an established supervisor on site. Step 7.1.5.2.1 allows those individuals specifically authorized by name and/or title in an operations special order to accept or release a clearance as a supervisor on site.

Contrary to the above, two examples of clearance orders being prematurely restored occurred because the guidance was inappropriate to the circumstances:

(1) On November 12, 1993, Steps 7.1.5.2 and 7.1.5.2.1 were inappropriate to the circumstances because the extent of personnel authorized to restore clearances was too broad. Clearance Order 93-2114-AK was restored inappropriately and resulted in personnel working in the condensate demineralizer without proper protection.

(2) On December 2, 1993, Steps 7.1.5.2 and 7.1.5.2.1 were inappropriate to the circumstances because the extent of personnel authorized to restore clearances was too broad. Clearance Order 93-2077-HF was inappropriately restored prior to all work being completed. The clearance was restored, prior to the manway to a total dissolved solids collector tank being reinstalled, creating a potential personnel hazard.

Admission of Violation:

WCNOC agrees that in both cases a violation of Technical Specification 6.8.1.a occurred.

Reason for Violation:

1. Clearance Order 93-2114-AK was implemented at 1300 CST, on November 11, 1993, to perform three Work Requests: 04490-93, Anion Regenerative Tank TAK03 manway removal and inspection; 05680-93, Valve AKHV0439 diaphragm repair; and 03649-92, Valve AKHV0425 repair. Three Mechanical Supervisors signed the clearance order in order to perform work for the associated Work Requests. Work Request 05680-93 was completed at 1640 CST, and Work Request 03649-92 was completed at 1730 CST. The manway to TAK03 was removed at 1730 CST under Work Request 04490-93, and inspection of the tank was planned for the following day.

   Because Work Request 03649-92 was completed at quitting time (1730 CST), the offgoing Lead Mechanic requested the Lead Mechanic working extended days to release Clearance Order 93-2114-AK. Procedure ADM 02-100, "Clearance Order Procedure," Revision 27, allowed individuals listed as a supervisor in Operations Special Order 5, Revision 19, "Safety Tagging," to sign for personnel within their work group. The Lead Mechanic on extended days was listed in Operations Special Order 5. The offgoing Lead Mechanic stated that he no longer required the clearance order, but that two other Mechanical Supervisors were signed onto the clearance order. Miscommunication lead the Lead Mechanic on extended days to believe that all three work requests were completed. The Lead Mechanic on extended days noticed that only one Supervisor had released the clearance order. He then signed for the remaining two Mechanical Supervisors.

   At 2251 CST, Operations removed the clearance order, but did not notice that the manway to TAK03 was removed. The manway is located at the top of the tank and no clearance tags needed to remove the clearance order were in the immediate area of the manway.

   On November 12, 1993, mechanics resumed work on Work Request 04490-93, but did not verify that Clearance Order 93-2114-AK was still in place. The mechanics entered the Anion Regenerative Tank to perform a liner inspection. Additional support was requested from Modifications group. One individual from the Modifications group entered the tank and found a nut missing from a flange in the bottom of the vessel. Personnel exited the tank, revised Work Request 04490-93 to replace the missing nut, returned, and entered the tank to complete work. At this time, conversations between Modifications personnel and the Water Treatment Supervisor identified that people were working in the Anion Regenerative Tank without a clearance order.

   The root cause of this event is a failure to verify all work identified on Clearance Order 93-2114-AK was complete prior to release. A contributing factor to this event was miscommunication between personnel during turnover. Also, the ability of personnel to accept/release clearance orders as supervisor (located in Special Order 5) contributed by allowing personnel not involved in the work scope to release the clearance order.

2. Work Request 06149-93 was initiated on November 5, 1993, to clean Total Dissolved Solids Collector Tank "B" (THF03B), which included removing the manway. Clearance Order 93-2077-HF was placed on November 17, 1993, for performance of Work Request 06149-93. On November 23, 1993, Mechanical Maintenance personnel signed on the clearance order and removed the manway. On November 30, 1993, sludge was removed from the tank and work was stopped, prior to replacing the manway. That same day, Work Request 05234-93 was added to the scope of Clearance Order 93-2077-HF. This was accomplished by affixing Attachment Ie, "Work Request Addition Sheet," to the back of the clearance order. On the evening of November 30, 1993, a mechanic accepted the clearance order so Work Request 05234-93 could be performed on the morning of December 1, 1993.

   Since Work Request 05234-53 was not scheduled for December 1, a mechanic other than the one who accepted the clearance order worked the Work Request. The mechanic arriving to work signed onto the clearance order but was not informed that work request 05234-93 had been added to the scope of work covered by an existing Clearance Order, 93-2077-HF. After performance of the work request, the mechanic released the clearance order. The mechanic noted that only one work request was listed in the "Reason for Clearance" section of the clearance order, but did not verify that the work request number just completed matched the work request number referenced on the front of the clearance order. One release block remained unsigned on the clearance order; i.e., work pending completion for Work Request 06149-93. Using a "one-to-one" logic, the mechanic, himself a lead, assumed all work was complete, and signed the remaining block as well. As noted above, Procedure ADM 02-100, "Clearance Order Procedure," Revision 27, allowed individuals listed as a supervisor in Operations Special Order 5, "Safety Tagging," to sign for personnel within their work group.

   On December 1, 1993, Operations removed Clearance Order 93-2077-HF. The operators removing the clearance order did not notice the manway to Total Dissolved Solids Collector Tank "B" was removed. Gasket material had been placed on the opening for cleanliness reasons, and appeared to be a cover to the manway.

   On December 2, 1993, a new crew of mechanics was given Work Request 06149-93 to replace the manway. The mechanics were directed to get permission to start work, since it had been nine days since removal of the manway, and to accept Clearance Order 93-2077-HF. It was then identified by the Shift Supervisor that the clearance order had been restored the night before.

   The root cause of this event is a failure to verify all work identified on Clearance Order 93-2077-HF was complete prior to release. A contributing factor to this event was miscommunication. Also, the ability of personnel to accept/release clearance orders as supervisor (located in Special Order 5) contributed by allowing personnel not involved in the work scope to release the clearance order.

Corrective Steps Taken and Results Achieved:

- A memo dated November 12, 1993, was issued to all mechanics discussing Example 1 of this violation, followed by group discussions to ensure all crews were involved.
- Letter MA 93-0354 dated December 17, 1993, was written to all mechanics defining the expectations of individuals who accept and/or release clearance orders.
- On December 17, 1993, Special Order 5, "Safety Tagging" was revised to delete the provisions for craft personnel to sign onto clearance orders as supervisor. In addition, all open clearance orders were reviewed by Mechanical and Electrical Maintenance personnel for those signed as supervisor and replaced titles with names.
- Copies of PIRs 93-1407 and 93-1565 documenting the events, root cause(s), and corrective actions by Mechanical Maintenance were distributed to the work groups within Maintenance and Modifications to be handled within their departments, as appropriate.

Corrective Steps that Will Be Taken to Avoid Further Violations:

The corrective actions described above are considered appropriate and sufficient to avoid further violations. Therefore, all corrective actions are complete.

Date When Full Compliance Will Be Achieved:

Full compliance for this violation was achieved on December 17, 1993, with the issuance of Revision 20 to Special Order 5, "Safety Tagging."

Actual or Potential Consequences of This Violation:

WCNOC recognizes the serious potential consequences of improperly restoring clearance orders prior to all work being performed. These specific instances involved increased risk to personnel safety, but no potential for radiological consequences. There were no actual consequences to the public's health and safety since this violation occurred in the non-nuclear side of the plant (i.e., the feedwater polishing system).

Violation 482/9329-03: Failure to Adequately Address a Deficiency: Corrective actions for nonsignificant PIR 93-0982, dated September 3, 1993, did not consider other affected groups.

Findings:

10 CFR Part 50, Appendix B, Criterion XVI, specifies that measures shall be established to assure that conditions adverse to quality, such as deficiencies, deviations, and nonconformances are promptly identified and corrected.

Procedure KGP-1210, "Performance Improvement Request," Revision 9, Step 6.3 specifies requirements for processing nonsignificant performance improvement requests that include consideration of work groups affected. Step 6.3.1 specifies for non-significant performance improvement requests that personnel shall review the performance improvement request and determine what corrective actions, if any, should be implemented. The scope and depth of the evaluation should be appropriate to the circumstances.

Contrary to the above, corrective actions for Performance Improvement Request 93-0982 relating to inappropriate restoration of a clearance order, were implemented only for electrical maintenance when the corrective actions were applicable to all crafts. Subsequently, on November 12, 1993, mechanical maintenance personnel performed work without a clearance order in place to protect personnel safety.

Admission of Violation:

WCNOC agrees that a violation of 10 CFR Part 50, Appendix B, Criterion XVI occurred.

Reason for Violation:

The ineffective corrective actions identified in this violation concern the programmatic controls in place for the plant's clearance order program. Many of these controls, contained in procedure ADM 02-100, "Clearance Order Procedure" and in Special Order 5, "Safety Tagging", have been in use for several years and have generally been effective in safely implementing the clearance order program. On September 2, 1993, a clearance order for work being performed by the Electrical Maintenance group, was signed off while work was still being performed. It was immediately identified and the clearance order was resigned by the worker. No equipment was operated that could have threatened personnel safety or caused equipment damage. Although the event was caused by personnel error, the Manager Electrical Maintenance felt it was prudent to implement some additional controls for his group to minimize the possibility for additional errors. These controls (as described in PIR 93-0982) required personnel to sign on clearance orders for each job performed, list the clearance order next to the affected work request in the electrical maintenance log book, and notify the senior electrician upon completion of work and the status of ongoing work.

However, similar events involving mechanical maintenance personnel occurred on November 12 and December 2, 1993. These events pointed to the need to review the administrative controls in place to determine if they should be modified in order to provide additional assurance that similar events would not occur. This review determined that the practice of allowing a worker's supervisor instead of the worker to sign off a clearance order was a practice that relied too heavily on careful communication between the worker and supervisor. This practice was a contributor to all three events and was discontinued on December 17, 1993, with the revision to Special Order 5.

Therefore, the cause of the ineffective corrective action for PIR 93-0982 was the responsible manager not making programmatic changes or ensuring other groups took steps to minimize the possibility of personnel error in this area of the clearance order process.

Although not a substitute for effective corrective actions, processes are in place to distribute copies of PIR's to groups which could be impacted by a PIR. One method is a distribution made by the responsible manager. The second is a review performed by an independent group. For PIR 93-0982, neither of these methods provided a copy of the PIR to Mechanical Maintenance. Both of these methods are judgment calls on whether the information in the PIR would impact a group. In this case the PIR identified a personnel error and some activities done to reduce the chance of further errors. In hindsight it would have been appropriate to provide a copy of this PIR to Mechanical Maintenance. This would not necessarily have prevented the additional events, however, since Mechanical Maintenance personnel were aware of the need for careful communications in the area of clearance order restoration and the PIR did not indicate that a procedural weakness existed.

Corrective Steps Taken and Results Achieved:

- Initial corrective actions included discussing the contents of PIR 93-0982 with all organizations involved in the clearance order process.

- PIR 94-0019 was initiated to document the inadequate corrective actions for PIR 93-0982.

- A copy of PIR 94-0019 will be distributed to managers by January 31, 1994, to emphasize the need to maintain a company perspective when addressing PIR's and to consider if procedure weaknesses exist when a personnel error occurs.

Corrective Steps That Will Be Taken to Avoid Further Violations:

The above noted corrective actions are considered appropriate and sufficient to avoid further occurrences of this violation.

Date When Full Compliance Will Be Achieved:

Corrective actions will be completed on January 31, 1994, with the distribution of PIR 94-0019. At that time, WCNOC will be in full compliance with the requirements specified in 10 CFR Part 50, Appendix B, Criterion XVI.

Actual or Potential Consequences of This Violation:

WCNOC recognizes the significance of promptly and adequately addressing corrective action issues. There were no actual consequences to the public's health and safety since this violation was promptly identified and corrected. However, WCNOC understands that a failure to promptly and adequately address corrective action issue could lead to a repeat violation of regulatory requirements and to an increased the risk of adverse consequences to the public's health and safety.

Additional Information:

In late 1993 the format of the morning plant status meeting was changed to include a review of select PIRs. PIRs are routinely selected for such reasons as containing information pertinent to multiple organizations, being important to plant operation, or when questions exist about which is the best organization to be responsible for evaluation. Even though the format change was implemented prior to receipt of Violation 9329-03 and was not a result of the violation, this change will result in an additional level of management and organizational awareness of PIRs.