

WOLF CREEK

NUCLEAR OPERATING CORPORATION

Bart D. Withers
President and
Chief Executive Officer

September 9, 1992
WM 92-0150

U. S. Nuclear Regulatory Commission
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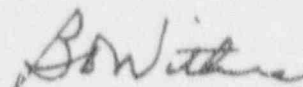
Reference: Letter dated August 10, 1992 from A. B. Beach, NRC, to
B. D. Withers, WCNOC
Subject: Docket No. 50-482: Response to Violation 482/9212-01
and 9212-02

Gentlemen:

Attached is Wolf Creek Nuclear Operating Corporation's (WCNOC) response to violations 482/9212-01 and 02 which were documented in the Reference. Violation 482/9212-01 involved the failure to properly implement procedures during the testing of the containment spray system and violation 9212-02 involving two examples of a failure to perform technical specification surveillance requirements.

If you have any questions concerning this matter, please contact me or Mr. Kevin J. Moles of my staff.

Very truly yours,



Bart D. Withers
President and
Chief Executive Officer

BDW/jra

Attachment

cc: A. T. Howell (NRC), w/a
J. L. Milhoan (NRC), w/a
G. A. Pick (NRC), w/a
W. D. Reckley (NRC), w/a

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Reply to a Notice of Violation

Violation (482/9212-01): Failure to Properly Implement Procedures

Findings:

Technical Specification (TS) 6.8.1.a requires that written procedures shall be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide (RG) 1.33, Revision 2, dated February 1978. RG 1.33, Appendix A, Item 8.b(1) requires procedures for surveillance tests of containment heat and radioactivity removal systems. This is accomplished, in part, by Procedure STS EN-205, Revision 6, "Containment Spray System Inservice Valve Test."

Steps 5.2.4 and 5.2.5 of Procedure STS EN-205 require that Valve EN HV-16 be repositioned closed for stroke-time measurement.

Contrary to the above, on June 3, 1992, during the implementation of Procedure STS EN-205, Steps 5.2.4 and 5.2.5 were not performed. With Valve EN HV-16 open, a direct path was created from the refueling water storage tank to the spray additive tank when a nonlicensed operator began to restore the systems to its normal lineup. This resulted in the dilution of the sodium hydroxide concentration of the spray additive tank.

Reason For The Violation:

On June 3, 1992 during the performance of surveillance procedure STS EN-205, "Containment Spray Inservice Valve Test," Step 5.2.3 had been completed by a nuclear station operator (NSO). Performance of Step 5.2.3 filled and vented the containment spray system in preparation for stroking valve EN HV-16 (Spray Additive Tank Outlet to Containment Spray "B" Isolation Valve). A Control Room operator was sent locally to independently verify completion of Step 5.2.3 in accordance with the procedure. The NSO then stored the equipment utilized to fill and vent the system. Control Room personnel were waiting for notification from the NSO that Step 5.2.3 had been completed before performing Steps 5.2.4 and 5.2.5 which stroke close EN HV-16, when a spray additive tank high pressure alarm was received. The NSO had proceeded to restore the system to normal in accordance with Step 6.0 assuming that Step 5.2.4 and 5.2.5 had been performed by the Control Room. The reason for this violation was the failure of the NSO to ensure that the appropriate steps in the surveillance procedure had been performed prior to restoring the system.

Contributing to this event were poor communications in the directing of the surveillance test and the perception that the test needed to be completed prior to shift turnover.

Corrective Steps That Have Been Taken And Results Achieved:

The Control Room closed valve EN HV-16 to prevent further dilution of the spray additive tank with Refueling Water Storage Tank water. The containment spray system was declared inoperable until the concentration of the sodium hydroxide solution and the level of the tank was determined. Temporary

procedure TP-OP-258, "TEN01 Drain/Fill" was developed and the tank level drained to approximately 90 percent and 400 gallons of 50 percent by weight sodium hydroxide solution added to the tank. The containment spray system was declared operable on June 5, 1992.

Corrective Steps That Have Been Taken To Avoid Further Violations:

The personnel involved with this violation were counseled and disciplinary action taken in accordance with Human Resources policies.

Wolf Creek Generating Station (WCGS) Standing Order 7, "Discussion of General Operating Philosophy Regarding Plant Evolutions" has been revised to clarify the control of evolutions in progress. The revised order specifically requires that a licensed operator in the Control Room shall be in charge and directing any activity which involve operating equipment or systems.

The Performance Improvement Request associated with this event has been included in Operations Required Reading for licensed operators and NSOs. Additionally, the details of this event will be included in licensed operator and NSO requalification training on plant/industry events.

Date When Full Compliance Will Be Achieved:

Full compliance will be achieved by January 15, 1993 with the completion of requalification training on plant/industry events.

Violation (482/9212-02): Failure To Perform TS Surveillance Requirements

Finding:

Two examples of failure to perform required TS Surveillance Requirements within the specified surveillance intervals are stated below:

1. TS 4.2.1.1.a requires that each diesel generator shall be demonstrated OPERABLE in accordance with the frequency specified in Table 4.8-1, "Diesel Generator Test Schedule." Table 4.8-1 specifies that, with the number of failures in the last 100 valid tests greater than or equal to 5, the test frequency shall be at least once per 7 days.

Contrary to the above, on June 26, 1992, the licensee determined that, on two occasions, Emergency Diesel Generator (EDG) B was not tested within the required 7-day interval. These tests were required to be performed because, on June 8, 1992, EDG B experienced its fifth valid test failure in the last 100 valid tests. As a result, EDG B should have been tested by June 15 and 23, 1992. EDG B was not tested until June 26, 1992.

2. TS 4.6.1.3.b requires that each containment air lock shall be demonstrated OPERABLE by conducting an overall air lock leakage test at not less than 48 pounds per square inch and by verifying the overall air lock leakage rate is within its limit at least once per 6 months. This is accomplished by Procedure STS PE-014A, "Containment Air Locks Test (Personnel Hatch)," and Procedure STS PE-014B, "Containment Air Locks Test (Equipment Hatch)."

Contrary to the above, on July 7, 1992, the license determined that the personnel and emergency air lock tests were not performed within the required 6-month interval. Procedure STS PE-14A became late on May 26, 1992, and was performed on June 25, 1992, 31 days overdue. Procedure STS PE-14B became late on March 21, 1992, and was performed on April 15, 1992, 26 days overdue.

Reason For Violation:

1. On June 26, 1992, while reviewing past failures of Emergency Diesel Generator (EDG) "B" to support the writing of Special Report 92-002, the utility engineer responsible for monitoring diesel reliability discovered that the testing frequency for EDG "B" should have been increased to at least once per seven days in accordance with Technical Specification Tables 4.8-1 following the valid failure on June 8, 1992.

The root cause of this event was a combination of cognitive personnel error and procedural weakness. The utility engineer failed to formally review the number of failures in the last 20 and 100 valid tests immediately following the valid failure on June 8, 1992. This utility engineer is responsible for determining the number of failures related to Technical Specification Table 4.8-1 and notifying the appropriate organizations if the testing frequency needs to be increased. The engineer did not formally review the number of failures because the engineer was aware that the failure had been properly classified as a valid failure and believed that the appropriate organizations were taking the proper actions. Also, the utility engineer was aware that the valid failure on June 8, 1992 was the first failure in the last 20 valid tests but was not aware that between March of 1987 and June of 1992 100 valid tests had been conducted with five valid failures. Procedure ADM 01-0244, "EDG Reliability Monitoring Program," monitors EDG reliability to meet the requirements of 10 CFR 50.63. This procedure required the number of failures in the last 20 valid tests to be listed on a form for all valid failures, but not for the last 100 valid tests since it was not developed for the purposes of meeting Technical Specification requirements. Also, procedure ADM 01-244 did not require that this information be completed within a certain time frame. This event was reported in Licensee Event Report 92-011-00.

2. On July 7, 1992, at approximately 1300 CDT, while updating the surveillance database and the manual surveillance tracking system, the surveillance group discovered that the due dates and late dates for the last performances of test STS PE-014A and B, "Containment Air Locks Test," had been miscalculated. The surveillance database is used to track the performance of surveillance tests. A manual surveillance tracking system is kept updated using due dates and late dates calculated by the computerized scheduling program. This manual system is maintained in the event that the computerized scheduling program becomes unavailable or corrupted. The miscalculated due dates and late dates resulted in tests STS PE-014A and STS PE-014B not being accomplished within the Technical Specification surveillance allowable interval of at least once per six months. Test STS PE-014A should have been performed by May 26, 1992 instead of July 12, 1992 and test STS PE-014B should have been performed by March 21, 1992 instead of May 6, 1992.

An investigation following this event revealed that the late dates calculated for tests STS PE-014A and STS PE-014B by the computerized scheduling program which automatically calculated the next due date and late date based on the previous performance dates were based on a 25 percent extension which is specified in Technical Specification 4.0.2. Technical Specification 4.0.2 requires that each surveillance requirement be performed within the specified surveillance interval with a maximum allowable extension not to exceed 25 percent of the specified interval. However, the provisions of Technical Specification 4.0.2 are not applicable to surveillance procedure STS PE-014A and B.

The data field in the surveillance database that contains an identifier for surveillance procedures which are not governed by Technical Specification 4.0.2 was discovered blank during a review of this event. A review of past records indicates that this identifier was present in December 31, 1990, but was missing on July 1, 1991. Because of the length of time between the time of the event and discovery an exact cause for the missing identifier could not be determined. However, it appears that in April of 1991 the identifier was erased when the information in an unrelated data field was manually deleted in the surveillance database by a Computer Services Systems Analyst. This event was reported in Licensee Event Report 92-012-00.

Corrective Steps That Have Been Taken And Results Achieved:

1. On June 26, 1992 at 1551 CDT, the Control Room was notified of the failure to increase the testing frequency of EDG "B". The EDG was declared inoperable and Technical Specification 3.8.1.1 was entered. Technical Specification 3.8.1.1 requires, in part, that the inoperable EDG must be restored to operable status within 72 hours or the unit must be placed in Hot Standby within the next 6 hours and in Cold Shutdown within the following 30 hours. At 2356 CDT, EDG "B" was declared operable after the successful performance of surveillance test procedure STS KJ-005B, "Manual/Auto Start, Synchronization, and Loading of Emergency Diesel Generator NEO2." Also, the schedule for testing EDG "B" was changed to once per seven days. On August 21, 1992, the increased testing frequency for EDG "B" was removed in accordance with Technical Specification Table 4.8-1.
2. Upon discovery of this event, immediate steps were taken to identify data and confirm the integrity of the identifier and its calculated dates. The identifier and the calculated dates were reloaded into the surveillance database. A review of other surveillance tests affected by the missing data in the surveillance database did not reveal any other Technical Specification violations. Provisions have been made to prevent manual modifications to production data in the surveillance database.

Corrective Steps That Will Be Taken To Avoid Further Violations:

1. Procedure ADM 01-244 was revised on August 19, 1992 to indicate that the procedure is for monitoring failures for Technical Specification Table 4.8-1 and provide requirements to have the form completed within five days which will allow the seven day testing frequency to be met if accelerated testing is required. Also, in order to maintain a better awareness of how many failures have occurred, the form has been modified

to require the number of failures in the last 20 and 100 valid tests to be entered for all starts.

2. A computer program will be required to be written and tested prior to being used on the computerized scheduling database to make modifications to production data. In addition, a quarterly comparison will be made of the information currently in the surveillance database compared to what was in the database the previous quarter.

An evaluation is currently being conducted to evaluate the methods and controls used to make modifications to data in production applications and determine if those methods and controls are appropriate for all Computer Services supported applications. If these methods and controls are deemed inappropriate, the necessary steps to correct this situation will be accomplished by December 1, 1992.

Date When Full Compliance Will Be Achieved:

1. Full compliance on this portion of the violation has been achieved.
2. Full compliance will be achieved by December 1, 1992.

Additional Information:

Wolf Creek Nuclear Operating Corporation (WCNOC) is considering a License Amendment Request to Table 4.8-1, Diesel Generator Test Schedule. This table provides the criteria for determining whether an EDG should be tested at the normal frequency of every 31 days or at an accelerated frequency of every 7 days. The criteria for accelerated testing are either 2 or more failures of the last 20 tests or 5 or more failures of the last 100 tests. The change being considered would eliminate the 5 of 100 criterion from the table and the implied requirements for performing as many as 99 tests at the accelerated test frequency.

In order to ensure WCNOC is addressing the overall root causes for the surveillance problems experienced at Wolf Creek Generating Station, the following action was taken. All Licensee Event Reports (LER) associated with surveillance problems since the beginning of 1990 were reviewed to look for common root causes. Performance Improvement Requests (PIR) dealing with surveillance problems were also reviewed to see if further details could be identified to show common areas to be addressed. This review and the actions to be taken will be documented on PIR OP 92-0652. The Plant Trending group, in the area of corrective actions, will continue to trend PIRs to monitor the effectiveness of the actions taken and to identify any new trends which should be addressed.