

WOLF CREEK

NUCLEAR OPERATING CORPORATION

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Chairman, President and
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October 13, 1995

WM 95-0147

U. S. Nuclear Regulatory Commission
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Reference: Letter dated September 8, 1995, from R. A. Scarano, NRC,
to N. S. Carns, WCNOG
Subject: Docket No. 50-482: Reply to Weaknesses 482/9512-01,
482/9512-02, 482/9512-04 and 482/9512-05

Gentlemen:

The attached document contains Wolf Creek Nuclear Operating Corporation's (WCNOG) reply to the following weaknesses as documented in Inspection Report 50-482/9512: 482/9512-01, 482/9512-02, 482/9512-04 and 482/9512-05.

Weakness 482/9512-01 concerned failure of the Control Room staff to use site-wide announcements and facility briefings to inform plant staff of major plant developments and the status of emergency response activities.

Weakness 482/9512-02 concerned three examples of personnel in the Technical Support Center/Operations Support Center failing to maintain accountability.

Weakness 482/9512-04 concerned the practice of using multiple release times on the status boards and notification forms in the Emergency Operations Facility which caused confusion in the communication of dose assessment data to the Emergency Operations Facility Managers.

Weakness 482/9512-05 concerned the failure of emergency planning staff to control certain aspects of exercise activities. The response to this weakness contains revisions to commitments made in WCNOG's Reply to Weaknesses 482/9320-02 and 482/9320-06, Letter WM 94-0007, dated February 4, 1994. Reply to Weakness 482/9320-02 committed WCNOG to drill each emergency response team annually. The commitment is revised to allow one of the five emergency response teams to act as a controlling team for all drills and exercises during a calendar year, rotating the responsibility among the teams on an annual frequency. Reply to Weakness 482/9320-06 committed that WCNOG would not make changes to the scenario within two weeks of the exercise unless a significant correction was needed. The commitment is revised such that no changes will be made to the scenario within two weeks of the exercise without senior management's approval.

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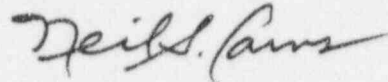
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An additional section is included in our response discussing the simulator failures and WCNOC's expectations for critiques.

The inspection report contained a number of suggestions for improvement that were noted and these will be aggressively pursued to ensure continuing improvement in future exercises. If you should have any questions regarding the responses, please contact me at (316) 364-8831, extension 4000, or Mr. William M. Lindsay at extension 8760.

Very truly yours,



Neil S. Carns

NSC/jad

Attachment

cc: L. J. Callan (NRC), w/a
T. P. Gwynn (NRC), w/a
D. F. Kirsch (NRC), w/a
J. F. Ringwald (NRC), w/a
J. C. Stone (NRC), w/a

Reply to 1995 Emergency Preparedness Exercise Weaknesses 482/9512-01,
482/9512-02, 482/9512-04, and 482/9512-05

Weakness 482/9512-01: Failure of the Control Room staff to use site-wide announcements and facility briefings to inform plant staff of major developments and the status of emergency response activities.

Weakness

The Control Room staff failed to appropriately use facility briefings and the site-wide paging system to announce significant events during the exercise. This weakness is based on the following examples:

The Shift Supervisor (SS) did not announce assumption of duty emergency director (DED) duties or the declaration of the Alert.

Plant-wide emergency classification announcements were made while the alarm was sounding or prior to the alarm and the volume of the announcement was low enough to be inaudible in some locations.

On three occasions Control Room staff did not announce significant changes in radiological and operational conditions.

Admission of Weakness

WCNOC agrees that the Control Room staff failed to appropriately use facility briefings and the site-wide paging system to convey important plant conditions or status changes.

Reason for Weakness

Control Room Staff Briefings and Site-Wide Announcements

Senior Management personnel agree that knowledge of emergency classification and response activities is useful to the Control Room staff and the emergency response personnel. Emergency response announcements should be made at appropriate pause points during the execution of the Emergency Operating Procedures.

During the last 12 months, Emergency Plan mini-drills (simulator drills conducted as part of each crew's training week) have not sufficiently emphasized proper site-wide announcements and adequate Control Room briefings concerning classification status and assumption of DED responsibilities.

Emergency Classification Announcements and Alarms

The ability to activate the site evacuation alarm is not available in the simulator Control Room. Therefore, the plant Control Room staff activates the alarm and makes the associated site-wide announcements during exercises. The shift clerk, making the announcements and sounding the alarm in the plant Control Room, was new to the shift clerk position, did not always follow the proper sequence and did not speak loud enough for the announcement to be heard in many locations. The shift clerk also failed to recognize the need to wait for the alarm to stop sounding before making the site-wide announcement.

Corrective Steps Taken and Results Achieved

Immediately following the conclusion of the Exercise, the Shift Supervisor in the Control Room and the Shift Clerk reviewed the problems associated with the announcements. The Shift Clerk understands the errors she made and the need for a louder voice while making announcements. This discussion resulted in the development of a new Shift Clerk/Offsite Communicator Task List, as discussed in the section below.

During the Quarterly Operations Management Meeting on September 5, 1995, the Manager Operations discussed with the Operations' group supervisors, including all Shift Supervisors and Supervising Operators, the August 15, 1995, exercise weaknesses. He reinforced that the SS should update the staff on plant conditions and operational events. In the future, the status of emergency response activities, such as activation of the Technical Support Center (TSC) and the Emergency Operations Facility (EOF), will be announced to the Control Room staff.

Corrective Steps That Will Be Taken to Avoid Further Weaknesses:

Operations and Training will reinforce management's expectations for effective briefings and will ensure they are being met. Training and Emergency Planning personnel will evaluate Control Room staff activities during the ongoing Emergency Planning mini-drills through December, 1996, to verify the incorporation of these expectations into the training process.

To ensure that site personnel are made aware of changing plant conditions that could affect their safety, administrative procedure, AP 21-001, Revision 0, "Operations Watchstanding Practices," is being revised to include guidelines for announcements that affect personnel safety. Training will be conducted using the draft procedure, and any additional improvements that are identified will be incorporated into the final revision by December 31, 1995.

A Shift Clerk/Offsite Communicator Task List will be developed to include a site-wide announcement sequence and instructions on appropriate delivery of the messages. This new form will provide necessary guidelines for personnel to make required announcements. The form will be promulgated by November 3, 1995.

To enhance the site-wide announcement process and help the shift clerks gain experience making announcements, each shift clerk will practice his or her technique by making the announcement of the site evacuation alarm test. This

test is normally performed weekly. This task became part of the shift clerk's routine duties on October 13, 1995.

Date When Corrective Actions Will Be Completed:

With the exception of evaluation of the Control Room mini-drills, the corrective actions for this weakness will be completed by December 31, 1995. Evaluation of the Control Room mini-drills to verify effectiveness of the corrective actions will be completed by December 31, 1996.

Weakness 482/9512-02: Accountability was not always maintained in the Technical Support Center/Operations Support Center.

Weakness

On two occasions a health physics technician left the Operations Support Center (OSC) to obtain a dose margin report without logging out through the accountability clerk or logging out as part of a team assignment. The Onsite Survey Team Director was aware of the technician's actions, but did not cause the departure to be recorded. On a third occasion, the Operations Emergency Coordinator initiated action to dispatch an equipment operator directly from the TSC without processing this action through the OSC as part of an assigned team. An actual accountability problem did not ensue because the operator was not dispatched.

Admission of Weakness

WCNOC agrees that accountability was not always maintained in the TSC/OSC.

Reason for Weakness

The maintenance of accountability during an emergency is an individual responsibility. In the examples cited in the inspection report, individuals in the TSC/OSC failed to demonstrate understanding of this responsibility. This failure resulted from a lack of emphasis on the importance of accountability during training sessions, drills, and drill critiques.

Corrective Steps Taken and Results Achieved

On August 23, 1995, Emergency Planning personnel conducted a training session for those personnel supervising the accountability process in the TSC/OSC. This training was conducted to heighten awareness of accountability for the following positions: Operations Emergency Coordinator, Maintenance Emergency Coordinator, Radiological Emergency Coordinator, Onsite Survey Team Director and Operations Support Center Supervisor. For those personnel not able to attend the training session, management's expectations for accountability were transmitted by electronic mail on August 24. The training and electronic mail conveyed management's expectations for accountability and the appropriate methods for maintaining facility accountability.

A local area network (LAN) terminal has been installed in the OSC. This computer will eliminate the need for a person to leave the facility to obtain dose margin reports.

Corrective Steps That Will Be Taken to Avoid Further Weaknesses:

Emergency Planning personnel have distributed a bulletin, through the required reading process, to all TSC/OSC and EOF personnel clarifying that management expects individuals to be responsible for their accountability and how to ensure they are properly accounted for. The required reading has been distributed and acknowledgment of completion will be accomplished by November 10, 1995.

A sign will be posted on the back door of the TSC/OSC reminding individuals leaving the facility that they must first log out with the accountability clerk. The sign will be posted prior to the October 25, 1995, drill. Teams exiting the TSC/OSC will continue to be accounted for by the Onsite Survey Team Director.

Plans are to test the site accountability process during the October 25, 1995, drill, weather permitting. This will reinforce the importance of accountability to all Emergency Response Organization personnel. Additionally, drill critiques will include a review of accountability activities to ensure accountability was appropriately maintained.

Date When Corrective Actions Will Be Completed:

All corrective actions will be completed by November 10, 1995.

Weakness 482/9512-04: The practice of using multiple release times on the status boards and notification forms in the Emergency Operations Facility caused confusion in the communication of dose assessment data to the Emergency Operations Facility managers.

Weakness

The radiological assessment manager used the most recent data for the hourly management status conferences. Until 1:30 p.m., the information was accurately and clearly presented to the EOF managers. After 1:30 p.m., the release rate used in the emergency dose calculation program was modified by using the most recent field team data to postulate the release rate. Integrated dose projections from this time forward were accurately posted on the status boards and notification forms. However, these posted dose projections were confusing and not clearly communicated to the EOF managers.

Admission of Weakness

WCNOC agrees that the method for documenting total dose on the status boards and notification forms caused confusion and total dose was not clearly communicated to the EOF managers.

Reason for Weakness

It had been common practice at WCNOC to divide a release into distinct time blocks when significant changes to the release parameters (e.g. wind direction, release rate, etc.) occurred. After the release data changed at 1:30 p.m., the EOF Dose Assessment personnel did not post the total dose for the release on the status boards or the notification forms. This caused confusion when communicating with EOF management who did not understand that the integrated dose projection data did not represent the total dose from 10:30 a.m. (release start time), but only represented the total dose from 1:30 p.m. forward.

Corrective Steps That Will Be Taken to Avoid Further Weaknesses:

Training will be conducted with the emergency response personnel responsible for developing and interpreting dose assessment data to ensure they understand how it is being derived, documented, and used. The following emergency response personnel will be included in this training: Duty Emergency Directors, Duty Emergency Managers, Radiological Assessment Managers, Radiological Emergency Coordinators, Dose Assessment Supervisors, Dose Assessment Coordinators, Emergency Dose Calculation Program Operators, and the technical support personnel for the public information organization. This training will be completed by October 25, 1995.

A comment section will be added to the notification form and radiological status boards to allow space for explaining dose assessment information. This change will be completed by October 25, 1995.

Date When Corrective Actions Will Be Completed:

Corrective actions will be completed by October 25, 1995.

Weakness 482/9512-05: Failure of controllers to properly control exercise activities.

Weakness

Exercise controllers inappropriately provided data to players or provided inaccurate data, thereby affecting the ability of the players to demonstrate proficiency in their positions.

Admission of Weakness

WCNOC agrees that controllers failed to properly control exercise activities.

Reason for Weakness

Several examples of weak controller performance were detailed in the inspection report. Weak controller performance can be attributed to lack of controller preparation.

Controller training for this exercise did not adequately prepare controllers in the following areas: 1) how to correctly provide data to players in the field, 2) how and when to simulate activities, and; 3) how and when to give players earned data.

The lead exercise controller inappropriately interjected during an EOF managers meeting to inform players of a possible error involving the location of a field team. The lead exercise controller's intention was to prevent players from taking protective action beyond 10 miles based on incorrect drill information.

The hard copy data used following the simulator failure had two errors which confused the operational situation. The first error, concerning Refueling Water Storage Tank level, was caused by the scenario committee not anticipating players using alternate mitigative strategies. The second error, listing the incorrect flow rate for the safety injection pump, should have been identified and corrected during review of the scenario and prior to distribution.

Corrective Actions Taken and Results Achieved

The Emergency Planning Group is responsible for ensuring that controllers are prepared by overseeing simulated actions, performing thorough controller training, and incorporating and disseminating accurate scenario changes. To allow ample time for the Emergency Planning Group to prepare controllers, Senior Management has directed that no changes will be made to the scenario within two weeks of the exercise without senior management's approval. This revises a previous commitment which stipulated no changes were to be made to the scenario within two weeks of the exercise unless it was a significant correction, as stated in WCNOC's Reply to Weakness 482/9320-06, letter dated February 4, 1994, from N. S. Carns to the NRC.

Corrective Steps That Will Be Taken to Avoid Further Weaknesses

A controller manual has been developed to provide more instruction for controllers concerning correct exercise and drill control practices. This manual includes instructions concerning when it is appropriate to interrupt play, methods to effectively simulate activities, and methods to properly relay information to players. This manual will be issued and training on its contents will be conducted prior to the October 25, 1995, drill.

Controller training will be improved through two programs to be implemented by December 8, 1995:

The first program will include more detailed walk-throughs of the scenario. The onsite radiological data developer and equipment mini-scenario developers will physically walk through the plant with the onsite field team controllers, TSC engineering team controller and the Post Accident Sampling System controller. Controllers will review all pertinent radiological data and equipment repair activities. The offsite radiological scenario developer will review the offsite data with the offsite field team and the EOF dose assessment controllers. As appropriate, this review will include driving the roads within the projected plume area to ensure each controller has the ability to accurately determine location and to properly interpret the data.

The second program will emphasize the evaluators' need to monitor both controller and player activities. Additional improvements to drill controller training will be provided as identified by the evaluators.

One of the five emergency response teams will be designated as a controller team for an entire year and will serve as controllers during that year's drills and exercise. This duty will rotate annually among the five teams. This revises a previous commitment to drill each team annually, as stated in WCNO's Reply to Weakness 482/9320-02, letter dated February 4, 1994, from N. S. Carns to the NRC. Four of the five teams will be drilled each year and the fifth team will act as a controlling team. Ample opportunity thus will be provided for controllers to learn their positions and thoroughly understand how to follow and support a scenario. This rotation will begin on January 3, 1996.

Critical review of all scenario documentation will be emphasized during controller training. Access to electronic scenario files will be provided to all scenario committee members allowing more time for review prior to scenario reproduction and distribution for the next exercise. All exercise scenarios will be thoroughly performed on the simulator prior to each exercise.

Date When Corrective Actions Will Be Completed:

Corrective actions will be completed by January 3, 1996.

Additional Information Concerning Inspection Report 50-481/9512

Simulator Failures

The inspection report noted the simulator computer failed several times during the exercise. WCNOG uses the simulator extensively during operator training. Since the 1993 NRC graded exercise, when the simulator experienced a failure, numerous drills have been successfully conducted without a simulator failure. WCNOG recognizes that simulator failures cause difficulty for the players and for the controllers. In an effort to avoid a computer failure, the scenario was run on the simulator three times prior to the exercise. The three runs were conducted without the computer failing.

About seven days prior to the exercise date, a significant change was made to the scenario concerning the release path. This significant change was made with the approval of the Scenario Committee Chairman. This change was also tested prior to the exercise, and no failures were noted.

Since the files had all been pre-tested prior to the exercise, there was a high degree of confidence in their integrity. After the exercise, repeated attempts were made to reconstruct the failure sequence without success. Simulator file manipulations that were being performed in support of the exercise around the time of both failures were examined. No pattern or consistent sequence of events would reproduce the failure. WCNOG will minimize late changes to scenarios (as previously discussed in weakness 482/9512-05) and will continue to thoroughly test exercise scenarios on the simulator.

Management Critique

In the Licensee Self-Critique Section of the inspection report, it was noted that the difference in the number of issues identified by the NRC, when compared to those identified by WCNOG, was much larger than expected for exercises. It may appear, from the lack of similarity in comparing WCNOG's critique weaknesses with the NRC's weaknesses, that WCNOG was not adequately self-critical. However, Management involvement in the exercise was extensive with senior level personnel serving as senior facility evaluators. They were given a copy of the scenario, the last NRC exercise report and the NRC inspection module for emergency planning exercises to aid in their evaluation. The senior evaluators used their own observations as well as comments from the facility critiques to identify weaknesses. The senior evaluators observed their designated facilities for significant process breakdowns and failures. Many of the items classified as weaknesses by the NRC were also identified by WCNOG, but not classified as weaknesses.

The threshold for classifying a weakness was not low enough. Senior Management recognizes this and will be more self-critical in future exercises. Players, controllers, and evaluators will receive a briefing prior to each exercise clearly conveying management's expectations for critically assessing exercise performance.