

April 11, 1995

MEMORANDUM TO: James M. Taylor  
 Executive Director for Operations

FROM: William T. Russell, Director  
 Office of Nuclear Reactor Regulation

SUBJECT: NRR STAFF ACTIONS RESULTING FROM THE SPECIAL EVALUATION AT  
 COOPER NUCLEAR STATION (WITS #9400210)

Original Signed By  
 WILLIAM T. RUSSELL

In a memorandum of December 22, 1994, you assigned NRR, Region IV, AEOD and OP responsibility for resolving certain generic and plant-specific actions resulting from the special evaluation team's assessment at Cooper.

This memorandum describes the status of those items assigned to NRR and constitutes the first status report requested in your memorandum. Other offices have responded separately for items under their review. I have enclosed a summary of the schedule and status of each item assigned to NRR; items for which NRR does not have lead responsibility are listed for completeness.

If you have any questions, please contact Mr. James R. Hall of my staff on (301) 415-1336.

Attachment: Status Report

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20545-0001

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STATUS REPORT ON NRR STAFF  
ACTIONS RESULTING FROM THE SPECIAL  
EVALUATION AT THE COOPER NUCLEAR STATION

Issue 1: Clarity and Completeness of Technical Specifications

Action

Evaluate whether interim actions to upgrade the current Cooper TS are warranted pending a final decision on whether the licensee will upgrade their TS to be consistent with the standard TS. Upgrade the TS as appropriate. (NRR, Plant-specific)

Status

In numerous discussions with the NRR staff over the past 8 months, the licensee's new management team has acknowledged the need for comprehensive improvement of the Cooper custom TS. The licensee is currently selecting a consultant to perform a scoping study of the options for TS improvement, including conversion to the Improved Standard Technical Specifications (ISTS). Based on the results of this scoping study, the licensee expects to select a specific option for TS upgrade by late summer 1995, with a comprehensive upgrade package to be submitted in fall 1996. The licensee has also held preliminary discussions with a number of other boiling water reactor (BWR) Mark I plants regarding joint efforts toward TS improvement; eight utilities are tentatively scheduled to meet on May 8, 1995, to explore the concept further.

In the interim, the NRR staff and the licensee have mutually agreed that several individual TS should be promptly revised, including TS for diesel generator operability, control room envelope surveillance testing, and logic system functional testing (LSFT). The proposed TS changes for the diesel generators and LSFT are scheduled to be submitted in the next few weeks. An initial TS change for control room envelope testing was approved on January 27, 1995; a second related change will be submitted before the next refueling outage, which will commence in September 1995. The NRR staff and the licensee will continue to assess the need for additional license amendments to clarify or correct the existing TS on an individual basis, pending the licensee's final decision and implementation of a comprehensive TS improvement program.

The licensee is also conducting an extensive review of its surveillance test program, which will help to ensure that surveillances properly confirm equipment and system operability beyond TS requirements. Administrative procedures have been adopted for certain equipment surveillances, to specify allowed outage times that are not explicitly addressed in the current TS. These procedures provide a documented process for dealing with the lack of detail in some TS, in contrast to the previous practice of implementing TS requirements based on informal and inconsistent interpretations.

Issue 2: Adequacy of Operator Staffing to Perform Remote Safe Shutdown

Action

Evaluate whether action to revise the TS staffing requirements to reflect the addition of the fifth license is warranted. Upgrade the TS as appropriate. (NRR/RIV, Plant-Specific)

Status

The NRR staff has discussed this issue with the licensee to gain a better understanding of the background and purpose of the licensee's addition of a fifth licensed operator on shift. On November 26, 1991, the NRC issued Information Notice (IN) 91-77, "Shift Staffing at Nuclear Power Plants." IN 91-77 alerted licensees to the problems that could result from inadequate controls to ensure that shift staffing is sufficient to accomplish all necessary functions required by an event. The licensee reviewed IN 91-77 and determined that CNS did not have a safety concern regarding the adequacy of shift staffing. However, further review by the licensee noted that a significant workload burden was placed on the shift staff during simulated event scenarios, including evacuation of the control room and, at times, during day-to-day activities. To provide for more efficient operation, the licensee assigned an additional fifth licensed operator to each shift crew and later administratively required the fifth licensed operator on shift by an Operations Department memorandum dated November 3, 1993. The licensee is scheduled to formally incorporate this requirement into its administrative procedures by April 1995. The licensee's current TS identify the same shift staffing requirements as stated in the BWR/4 Standard Technical Specifications (STS). The ISTS do not include the minimum shift staffing requirements formerly specified in the STS, Table 6.2.2.g, because minimum staffing requirements are specified in 10 CFR 50.54(m). Because the licensee has specified that the fifth licensed operator is not required for the safe operation or safe shutdown of the reactor, the NRR staff has concluded that a change in the licensee's TS to reflect a requirement for an additional fifth licensed operator on shift is not warranted. We consider this item closed.

Issue 3: NRC Headquarters Personnel Radiation Dosimetry

Action

Address the level of compliance with NRC Manual Chapter 0524 and other Headquarters guidance regarding the issuance, use and monitoring of personnel dosimetry. Evaluate the need to develop and issue additional guidance and procedures and provide training to ensure a consistent policy is generally known and complied with. (OP/NRR/NMSS/AEOD, NRC-HQ)

Status

This issue will be addressed by OP.

**Issue 4: Use of Temporary Modifications in Emergency Operating Procedures Without Verifying That the Modifications Could Be Installed, Given Staffing and Timing Constraints.**

Action

Evaluate (a) the significance and number of plant temporary modifications (PTMs) which could reasonably be installed in a plant during the early phases of an event which would require entry into emergency operating procedures (EOPs) and not degrade safety, and (b) the need to assess the proficiency of the operations crew to implement PTMs during operator license examinations. Provide guidance as necessary. (NRR, Generic)

Status

- (a) The NRR staff recognizes the necessity to perform a limited number of PTMs in accordance with plant EOPs during the first hour of certain events. The adequacy of shift staffing and response time in regard to these essential PTMs varies because of the particular event, the plant-specific needs, and the plant-specific task allocation scheme used.

As part of the NRC Emergency Operating Procedure Inspection Program, the staff conducted a review of EOPs, EOP useability, and the EOP development process, paying particular attention to the validation and verification (V&V) activities at each operating nuclear power reactor facility. Region-led followup EOP inspections, conducted in accordance with Inspection Procedure 42001, "Emergency Operating Procedures," continue to evaluate EOPs and EOP programs, including the V&V initially required by Supplement 1 to NUREG-0737, "Requirements for Emergency Response Capability." These inspections continue to find weaknesses in the V&V of procedures, as described to licensees in Supplement 1 to NUREG-1358, "Lessons Learned from the Special Inspection Program for Emergency Operating Procedures." The staff will review the results of recent EOP inspections focusing on the use of PTMs and the V&V of procedural steps associated with them, particularly the staffing, time, and environmental constraints. The results of this review will be evaluated to determine whether further staff action is warranted in this area. The staff will complete its review of EOP inspection results by June 30, 1995.

- (b) Although NUREG-1021, "Operator Licensing Examiner Standards," does not specifically require the use of PTMs during every license examination, control room and in-plant PTMs are included in the field of knowledge and abilities (K/As) required of licensed reactor operators (ROs) and senior reactor operators (SROs). The items to be tested on any particular examination are selected from the safety-significant (high-importance) K/As identified in the facility licensee's job task analysis or from the appropriate NRC "Knowledge and Abilities (K/A) Catalog for Nuclear Power Plant Operators: Pressurized-Water Reactors," NUREG-1122, or "Knowledge and Abilities (K/A) Catalog for Nuclear Power Plant Operators: Boiling-Water Reactors," NUREG-1123. The PTMs required by a facility licensee's emergency procedures and other operating procedures would therefore be

examined on a sampling basis, just as any other safety-related K/As are tested.

Generally, an operator's ability to implement a selected PTM would be evaluated by using a job performance measure (JPM) during the walkthrough portion of the operating test. This performance-based testing tool enables the examiner to observe the applicant execute a task on the simulator or describe its implementation in detail at the appropriate plant location. The NRC licensing examination currently requires RO and instant SRO applicants to correctly complete at least 8 of 10 selected JPMs to pass the walkthrough portion of the test; SRO upgrade applicants must correctly complete at least four of their five JPMs.

The NRR staff has not noted any generic weaknesses in the execution of PTMs during the operator licensing or requalification examination processes. If the process of developing, validating, practicing, and conducting PTMs for initial and requalification examinations revealed a technical or procedural deficiency that had theretofore gone undetected, the staff ensured that the facility licensee took the appropriate corrective actions. The staff does not believe that it is necessary or appropriate to modify the examination sampling process to ensure that a specified number of PTMs are evaluated on every license examination. We consider part (b) of this action closed.

Issue 5: Questionable Heat Transfer Capability of the RHR Heat Exchangers Because of Tube Plugging and Increased Fouling

Action

Evaluate (a) the adequacy of calculations performed to determine the heat transfer capability of the RHR heat exchangers, (b) the acceptability of their current condition, and (c) the acceptability of the schedule for replacement of the heat exchangers. Take action as necessary. (RIV/NRR, Plant-Specific)

Status

This issue will be addressed by Region IV.

Issue 6: Safety-Related Equipment Testing Did Not Always Assure Operability

Action

Review the SET and previous DET reports to evaluate testing weaknesses in assuring operability. Identify any changes that could be made to improve the effectiveness of testing programs for assuring operational safety. (AEOD, Generic)

Status

This issue will be addressed by AEOD.

Issue 7: Licensee Response to the SET Report

Action

Review and evaluate the licensee's response to the special evaluation report for completeness. Prepare an appropriate reply for the EDO's signature.  
(Region IV/NRR/AEOD, Plant-Specific)

Status

The licensee's response of January 30, 1995, to the SET report was evaluated and found acceptable. This evaluation was enclosed in a letter dated March 15, 1995, from James Taylor, NRC/EDO, to Ronald W. Watkins, President and Chief Executive Officer, Nebraska Public Power District. Action Item 7 is complete.