



## Nebraska Public Power District

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NLS950040  
January 30, 1995

Mr. James M. Taylor  
Executive Director for Operations  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Subject: Response to letter from James M. Taylor to Ronald W. Watkins dated November 29, 1994

References: (1) Cooper Nuclear Station Diagnostic Self Assessment, July - August 1994  
(2) NRC Special Evaluation Team Report Cooper Nuclear Station, August 15-19, 1994

Dear Mr. Taylor,

On September 1, 1994 the Nebraska Public Power District (the District) issued a Cooper Nuclear Station (CNS) Diagnostic Self-Assessment Team (DSAT) report which documented the results of an intensive third party evaluation conducted between July 25 and August 19, 1994. The purpose of this effort was "to identify areas requiring improvement and to determine the root causes for the station's declining performance." (Reference 1) Subsequent to the issuance of this report, the NRC performed a Special Evaluation Team (SET) inspection to assess the "effectiveness of licensed activities performed by [the District] in ensuring safe operation at CNS, and [to determine] the causes of performance deficiencies." (Reference 2) In the November 29, 1994 transmittal of the SET inspection report, the NRC requested the District to provide its plans for addressing the identified root causes of the deficiencies observed in both the SET and DSAT reports.

As you may be aware, the District began responding to DSAT and SET issues before the reports were published. In several cases, the reports provided post-documentation of deficiencies that had been recognized through self-improvement activities. For example, some of the root cause issues and corrective actions discussed in these reports were addressed in the July 28 and August 8, 1994 responses to NRC Confirmatory Action Letters (CAL) dated May 27, June 16, July 1, and August 2, 1994, and as part of the Nuclear Power Group's (NPG's) Phase 1 Performance Improvement Plan (PIP). Also, the District provided specific written responses to SET members during and shortly after the SET inspection. Most recently, the District's Reply to a Notice of Violation and Proposed Imposition of Civil Penalties dated January 18, 1995 provided further insight regarding how the District is responding to performance and hardware concerns. Accordingly, the attachment to this letter reaffirms the related information contained in the previous correspondence, and summarizes the corrective actions (taken and planned) that address the stated root causes and related areas.

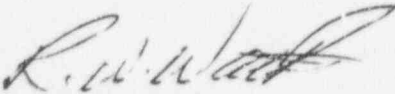
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The District has taken, and will continue to take aggressive actions responsive to management, programmatic, and oversight issues that have negatively impacted performance of the NPG. The progress to date in addressing the issues noted during the SET and DSAT inspections has been significant, and the District believes that CNS is currently performing at a level necessary for a return to power operations.

Should you have any questions concerning this matter, please contact my office.



R. W. Watkins  
President and C.E.O.

Attachment

cc: Regional Administrator  
USNRC Region IV

NRC Resident Inspector  
Cooper Nuclear Station

NPG Distribution

RESPONSE TO LETTER FROM JAMES M. TAYLOR TO RONALD W. WATKINS  
DATED NOVEMBER 29, 1994  
COOPER NUCLEAR STATION  
NRC DOCKET NO. 50-298, LICENSE DPR-46

The DSAT report identified the following root causes:

1. *Senior management has been ineffective in establishing a corporate culture that encourages the highest standards of safe nuclear plant operation.*
2. *Senior management did not establish the vision supported by adequate direction and performance standards to improve station performance.*
3. *Ineffective monitoring and lack of critical self assessment have prevented management from recognizing program and process deficiencies and making the necessary improvements.*
4. *An ineffective management development program has resulted in a lack of management and leadership skills necessary to ensure that strong leaders and managers are available to fill key corporate and station positions.*

The SET cited the following root causes:

1. *Executive and senior management of the Nebraska Public Power District responsible for the Cooper Nuclear Station failed to provide the policy, leadership and direction necessary to maintain appropriate corporate wide standard of performance. NPPD managers had not effectively implemented appropriate standards and expectations for corporate and station personnel or provided appropriate direction and supervision.*
2. *Performance of CNS had been characterized by major programs and processes which were poorly defined and lacked the comprehensive guidance necessary to assure consistent and effective implementation.*
3. *With the Exception of the DSA[T], NPPD's assessment and independent oversight activities had been ineffective in promptly identifying significant deficiencies which were subsequently identified by regulatory or third party assessments and failed to assure that lessons learned from industry operating experience were appropriately applied at CNS. The Corrective Action Program did not effectively support the recognition and resolution of plant problems.*

The District has closely examined the DSAT and SET reports both for the root causes and the specific examples addressed in the reports. As previously noted during several public meetings with the NRC, the District has taken or will take broad corrective actions to ensure immediate and long-term resolution of the issues identified in the subject reports. The discussions below summarize the District's response to the above root causes. Since most of this information has been discussed in previous NRC correspondence, only summary

information is provided. Please refer to the referenced documents for a more detailed discussion of the District's plans for corrective action. Also, related root causes have been grouped together to allow for more focused issue-directed responses.

I. Management Issues (SET Root Cause 1, DSAT Root Cause 1, 2, and 4)

The SET and DSAT root causes listed for this section were important areas of focus during performance improvement efforts, and accordingly, received prompt and extensive change at CNS (as noted in the District's November 7, 1994, letter to Mr. L. J. Callan). Continued improvement in management effectiveness is essential for ensuring long-term excellence as discussed in the Phase 2 and 3 Performance Improvement Plans. The following discussion addresses areas that contributed the most to redressing the subject root causes.

Personnel and Practices- An important initial step during early performance improvement assessment efforts was to determine current management's ability to effectively and promptly improve performance. As necessary, managers were hired who had higher performance standards. Several of the individuals hired had significant experience in successfully changing culture and management practices at other utilities. Specifically, the CNS management now includes a new: Site Manager; Quality Assurance Manager; Plant Manager; Safety Assessment Manager; Licensing Manager; Operations Manager; and Plant Engineering Manager. Additionally, an Events Analysis Manager was hired and assigned responsibility for the Operating Experience Review and Corrective Action Programs.

The new managers are providing the organization with leadership role models and setting high standards and expectations as the first step in performance improvement. This will enable the formulation of effective management development and rotational plans, that will provide the management depth necessary to maintain high performance standards for the long term. Continued assessment of management performance will occur, and additional changes will be made as necessary.

Changing management personnel is only one aspect of ensuring continued performance improvement. The NPG is also making the following changes in basic management skills and processes to better ensure long-lasting high performance:

- Self-assessment and problem solving is being instilled as an inherent management and organizational value such that instinctively, problems are identified and resolved and the generic implications with respect to safety are fully addressed.
- Higher expectations for performance and communication of standards both vertically and horizontally within the organization have been established.
- Accountability is being fully embraced by all levels of NPG personnel. Excuses for substandard performance on the part of management or staff are not acceptable. Management has clear responsibility, accountability, and

ownership of programs and processes to ensure continuing improvement in levels of performance.

- Adherence to detailed objective-based planning (with defined success criteria) developed with the participation, buy-in, and ownership of the organization has been monitored through the implementation of the Phase 1 Performance Improvement Plan.
- Steps have been established for ongoing management development. This includes formal training for NPG managers and supervisors in areas such as teamwork and communications, as well as planning for the longer-term establishment of baseline management capabilities. Also an enhanced succession planning process is scheduled for Phase 3 PIP implementation as a means to continuously increase the depth of the management team and to determine priorities for recruiting and development.
- Management information systems are being improved to enhance the NPG Management's ability to make critical and timely assessments of staff performance. Part of this effort is to evaluate additional software tools for use in such areas as budget, inventory control, and maintenance work management and control. A parallel effort is the development of meaningful NPG Performance Indicators.

Planning, Ownership, and Accountability- An important early step that addressed deficiencies in planning, ownership, and accountability was the Phase 1 Performance Improvement Plan, which clearly identified activities to be completed prior to restart. This plan was owned by line management, with accountability for results being enforced by senior management. The Phase 1 PIP Action Plans are complete and have proven to be an essential tool for ensuring NPG staff's grasp on the skills of ownership and accountability while simultaneously addressing those activities required to restart the plant.

The Phase 2 and 3 Performance Improvement Plans address activities that will occur shortly after restart and within the next several years, respectively. They are focused on elevating the overall performance of CNS to meet the long-term objectives of excellence in safety, production, and economics. The Phase 2 and 3 PIPS, in conjunction with the NPG budgets and financial plans, will comprise the NPG Business Plan. In total, the Business Plan will provide the baseline management planning document acting as an integrating tool for normal work activities and Performance Improvement Plan actions, and will become the primary planning tool for communicating priorities, allocating resources, and budgeting for the long term.

## II. Systemic Deficiencies of Major Programs (SET Root Cause 2)

The following discussion addresses the broad corrective actions that have been implemented to address this root cause. These activities have been incorporated into the Phase 1, 2, and 3 Performance Improvement Plans.



Conduct of Operations- Past activities were often compliance-oriented with too much emphasis on production. The new management team, in conjunction with realigning responsibility and accountability for performance results, provides the appropriate balance between production and safety. For example, the NPG has already made significant changes in critical areas including preconditioning prevention, elimination of the ability to bypass the normal engineering process through SORC-approved Maintenance Work Requests (MWRs), and a substantial improvement in personnel ownership of key programs such as work control and surveillance testing. Additionally, the NPG has increased its focus on meeting both the letter and intent of the Technical Specifications through an extensive surveillance verification effort and development of allowed outage times for surveillance testing.

Design Basis Information- The District recognizes that an important contributor to many of the programmatic issues was the CNS staff's reliance on the correctness of the initial plant design. This was partly caused by not always having adequate design basis information available in a timely manner to support critical activities, such as operability assessments. To improve performance in this area, the District has accelerated the schedule for the Design Criteria Document (DCD) Program. Also, accompanying the DCD effort is a verification and validation program which will help ensure that design basis information is accurately contained in the critical output documents.

Operational Experience Review- Thorough review of industry operating experience is a key activity that significantly improves the NPG's ability to detect and respond to plant issues. Increased resources and new leadership provided to the Operational Experience Review (OER) program already has resulted in improved performance. Additionally, as discussed in the District's August 8, 1994 response to Confirmatory Action Letter 4-94-08, a comprehensive screening and review of OER documents that could impact safety has been performed to ensure the proper disposition of previously closed OER items which could affect restart.

Engineering Support- In addition to the management improvements discussed previously, a comprehensive Engineering study is underway to better integrate the resources at the General Office and at CNS. This study will address the need to:

- Refocus Plant Engineering on day-to-day system engineering and operations needs with additional staffing and training as necessary.
- Create a strong engineering and project management organization that will promote engineering ownership and accountability for plant performance results.
- Commit the remaining engineers to discipline-oriented design engineering.

An interim on-site engineering organization has been implemented to support plant restart. The long-term engineering requirements are being evaluated and will be implemented in the near future.

Work Control Practices- A critical area of focused NPG attention has been work control. For example, the work control process has been reorganized into a more centralized work control program with tools for closely monitoring work progress. This has already reduced the work load on the Shift Supervisors. In addition, it will positively impact safety in the future by minimizing unnecessary divisional outages and increasing safety system availability through efficient scheduling of system outages for maintenance. Process improvements of this type, when implemented at plants in similar conditions, have doubled work through-put by removing inefficiencies. These changes have increased CNS's ability to reduce work backlogs while simultaneously improving safety performance. Other important process changes have been made such as enhanced torquing controls and a new foreign material exclusion program.

### III. Self-Assessment and Oversight (SET Root Cause 3, DSAT Root Cause 3)

To achieve the performance results required, the NPG must have an effective independent oversight capability. Previously, SRAB and SORC were not effective in identifying and ensuring correction of safety issues. In response to this, new SRAB and SORC members have been introduced who have broader industry experience. The charters have been revised, the focus on mission reestablished, and expectations have been clearly communicated. This has led to SRAB and SORC being more effective at identifying the important safety issues for the station, and in providing a broad overview of CNS activities.

Effective oversight also depends on having an active Quality Assurance (QA) organization. QA is now providing the needed confidence for long-term compliance. Their assessment function also continues to improve. As previously noted, QA has new leadership, which has had a positive impact on the quality of self-assessments.

A cornerstone of NPG's performance improvement is the identification of problems and their satisfactory and timely resolution. NPG has made significant progress in ensuring that condition reports (CRs) are written on all identified problems, corrective actions are effective, and generic implications of problems are identified. The major increase in CR initiation rate is a testament to rising standards. To address the impact of CRs, performance indicators for open CRs have been elevated as a topic at regular management review meetings, allowing prioritization and direction of resources to resolve the important issues being faced. The NPG is improving its ability to resolve CRs through the Condition Review Group and improving the CR closeout process by management review through Corrective Action Review Boards. The new Events Analysis Manager along with an increased staff have improved the quality and efficiency of corrective actions.

To enhance corporate oversight, an Industry Advisory Group (IAG) has been established. This group will provide independent oversight of NPG activities and feedback to the Board of Directors and Corporate Executive Committee. The IAG is comprised of three members with broad regulatory, industry, and design experience. A charter has been established to govern the activities of the group.

IV. Summary

The DSAT and SET inspections provided valuable independent insight into the challenges that the NPG was facing. The reports' observations and root cause assessments have been thoroughly reviewed and the District has carefully developed and closely monitored performance improvement efforts. In this spirit, positive changes in the way business is done at CNS have already taken place through new management and the Phase 1 Performance Improvement Plan. The level of improvement seen to date has given the District confidence that Cooper Nuclear Station can return to power operation and be a good performer. Furthermore, the management, resources, and planning for the future that have been established within the NPG set the stage for realizing the District's longer-term vision and commitment in achieving recognized industry excellence.



#### RELATED CORRESPONDENCE

1. Letter from Mr. L. J. Callan (USNRC) to Mr. G. R. Horn (NPPD), dated May 27, 1994, Confirmatory Action Letter (CAL 4-94-06).
2. Letter from Mr. L. J. Callan (USNRC) to Mr. G. R. Horn (NPPD), dated June 16, 1994, Confirmatory Action Letter- Revision 1 (CAL 4-94-06A).
3. Letter from Mr. L. J. Callan (USNRC) to Mr. G. R. Horn (NPPD), dated July 1, 1994, Confirmatory Action Letter- Revision 2 (CAL 4-94-06B).
4. Letter from Mr. L. J. Callan (USNRC) to Mr. G. R. Horn (NPPD), dated August 2, 1994, Confirmatory Action Letter (CAL 4-94-08).
5. Letter from Mr. G. R. Horn (NPPD) to Mr. L. J. Callan (USNRC), dated July 28, 1994, Response to Confirmatory Action Letter.
6. Letter from Mr. G. R. Horn (NPPD) to Mr. L. J. Callan (USNRC), dated August 8, 1994, Response to Request for Additional Information.
7. Letter from Mr. G. R. Horn (NPPD) to Director, Office of Enforcement (USNRC), dated January 18, 1995, Reply to a Notice of Violation and Proposed Imposition of Civil Penalties.

February 1, 1995

Mr. Ronald W. Watkins, President  
and Chief Executive Officer  
Nebraska Public Power District  
P.O. Box 499  
Columbus, Nebraska 68602

Dear Mr. Watkins:

In my letters of January 25 and June 21, 1994, that followed the last two semiannual Senior Management Meetings (SMMs), I advised you of our concerns regarding recent trends in performance at Cooper Nuclear Station. In my June 21 letter, I noted that additional time was needed for the NRC to assess the effectiveness of the actions you had taken to address these concerns following the January 1994 SMM. I further noted that you should review the adequacy of your planned actions in view of the plant hardware problems and personnel performance issues that were identified at Cooper Nuclear Station shortly before the June SMM.

On January 18-19, 1995, an SMM was held at which NRC managers once again reviewed and evaluated the safety performance of operating reactors. The discussions regarding Cooper Nuclear Station considered the additional insights gained from your Diagnostic Self-Assessment conducted between July 25 and August 19, 1994, and the NRC Special Evaluation Team assessment conducted between August 15 and October 7, 1994. Based on these discussions it was concluded that the corrective actions you are taking are responsive to the areas of concern raised by the NRC and by your own self-assessments. However, as we noted in our earlier letter of June 21, 1994, additional time is necessary to assess the effectiveness of these actions, as many of them are ongoing or just recently completed. An area of emphasis for NRC's assessments of Cooper Nuclear Station will be plant hardware and personnel performance during plant restart and power ascension activities.

If you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,  
Original signed by  
James M. Taylor  
James M. Taylor  
Executive Director  
for Operations

Docket No: 50-298

cc: See next page

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