Nebraska Public Power District
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NLS2004093
September 2, 2004

Dr. Bruce S. Mallett
Regional Administrator
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Drive, Suite 400
Arlington, TX 76011

Subject: Readiness for Lifting the Confirmatory Action Letter
Cooper Nuclear Station, Docket 50-298, DPR-46

Reference: 1. Nuclear Regulatory Commission letter CAL 4-03-001 to Clay C. Warren (Nebraska Public Power District) dated January 30, 2003, "Confirmatory Action Letter")

The purpose of this letter is for the Nebraska Public Power District (NPPD) to communicate to the Nuclear Regulatory Commission (NRC) Cooper Nuclear Station's (CNS) satisfactory completion of actions in the Confirmatory Action Letter (CAL) and readiness for the CAL to be lifted.

NPPD entered the Multiple/Repetitive Degraded Cornerstone column of the NRC Action Matrix (NRC Inspection Manual Chapter 0305) on April 1, 2002. NPPD developed a plan to improve performance at CNS and submitted Revision 1 of The Strategic Improvement Plan (TIP) on June 10, 2002. On August 22, 2002, the NRC completed a supplemental inspection of TIP using Inspection Procedure 95003. Following completion of that inspection, NPPD revised the improvement plan and submitted Revision 2 to the NRC on November 25, 2002. On January 30, 2003, the NRC issued a CAL to NPPD (Reference 1). The purpose of the CAL was to confirm the commitments made by NPPD regarding those actions in the improvement plan developed to address regulatory performance issues. CNS actions confirmed in the CAL addressed long-standing performance issues in the six areas of emergency preparedness, human performance, material condition and equipment reliability, plant modifications and configuration control, the Corrective Action Program (CAP) and engineering programs. The NRC has performed quarterly inspections to verify completion and effectiveness of actions in CAL-related areas of the TIP.

NPPD conducted an independent assessment from May 17-28, 2004 to determine whether CNS was ready for release from the CAL. Readiness was determined by evaluating the extent to

which sustainable performance improvement through TIP implementation had occurred in each of the six major CAL areas as well as the extent to which CNS completed the CAL-related actions committed to in the TIP. The NRC observed the Assessment and also conducted independent inspection activities. The results were discussed at a public meeting at Region IV on August 18, 2004.

The Assessment Team concluded that performance had improved in all six CAL areas. They also concluded that CAL-related actions in the improvement plan were completed. The Team also found that CNS used feedback from events that occurred during the tenure of the TIP to modify planned and implemented actions to facilitate performance improvement. The Team noted that CNS took actions above and beyond those committed to in the CAL that were effective in facilitating performance improvement in the CAL areas. The CAL-related actions scheduled to start prior to March 31, 2004 and be completed after that date were confirmed to have started on schedule, had made sufficient progress to date and are scheduled for completion.

The results of the Assessment were that five of the six CAL areas were determined to be ready for release from the CAL. The five areas are emergency preparedness, human performance, plant modifications and configuration control, CAP and engineering programs. These five areas were found to have improved in performance and to have a sufficient infrastructure established with monitoring and management oversight in place to sustain current performance and performance trends and facilitate further improvement toward excellence. The CAL area of material condition and equipment reliability, although improved, required that additional actions identified in four Areas For Improvement (AFI) be satisfactorily addressed before this area would be ready for release from the CAL. These AFI's would accelerate improvement and strengthen sustainability in this area. The AFI's were entered into the CNS corrective action program and all but one action has been completed. The remaining action involves initiating maintenance activities for critical component functional locations with near term risk. This action is scheduled to be completed by September 10, 2004.

The Assessment also provided CNS additional insights to take the station to excellence in the form of Observations. Although not discussed in this letter, each Observation has been entered into CAP.

In conclusion, NPPD believes that actions in the CAL have been completed and that these actions have been effective in addressing long-standing performance issues and sustainability. NPPD recommends that the NRC lift the CAL and believes that CNS no longer requires the additional NRC oversight of the Multiple/Repetitive Degraded Cornerstone column of the NRC Action Matrix to ensure regulatory performance and plant reliability.

A detailed discussion of CNS's readiness is in Attachments 1 and 2 including a summary of the CAL Assessment. That document is available for NRC review.

Should you have any questions or require additional information, please contact Paul Fleming, Licensing Manager at 402-825-2774.

Sincerely,

Randall K. Edington
Vice President-Nuclear and Chief Nuclear Officer
Cooper Nuclear Station

/jrs

Attachments

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ATTACHMENT 1

CAL CLOSURE

CAL ASSESSMENT

Objectives

- Confirm that CNS has completed the CAL-related actions committed to in the TIP.
- Determine the extent to which CNS addressed CAL-related problem statements, and whether performance has improved in the six CAL focus areas.
- Determine whether significant challenges/events that occurred in the recent past should have been prevented by actions taken through TIP, and if so, why they were not. Determine whether comprehensive preventive/corrective actions were developed and implemented, and the extent to which these have been effective.
- Consider actions that CNS took above and beyond those required by the CAL, and the extent to which these have been effective in improving performance.
- Determine CNS' ability to sustain improved performance and/or positive performance trends in each of the 6 CAL focus areas.

Assessment Team

With the exception of the Assistant Team Leader and the "Host Peer," the Team was composed of persons independent of CNS line responsibility primarily from Entergy to ensure objectivity/independence. Each team member was assigned primary responsibility for one of the six CAL areas. Team members possessed extensive knowledge and experience in their assigned areas. The Team Leader was a director-level individual, and a majority of the team members were at the manager or supervisor level. Additional oversight and review were provided by two vice-presidents from Entergy and a Director. A CNS Safety Review and Audit Board member was assigned as Team sponsor to provide advice and oversight during all phases of the assessment. A "Host Peer" (a CNS professional) was assigned to provide logistical support to the Team. Although Team members had primary responsibility for their assigned areas, overlap of assessment activities was performed, particularly in the CAL areas of larger scope (e.g., Corrective Action Program, Human Performance, and Material Condition and Equipment Reliability).

Approach

- Assess each CAL area independently - focus on whether sustainable improved performance exists in the six major areas of the CAL.
- Establish "measures of effectiveness" against which to judge performance. These measures have been developed from Objectives (considering Action Plan Causal Factors) from CAL-related TIP Action Plans. Performance that meets the "measures

of effectiveness" will mean that the CAL-related Action Plan Problem Statements have been effectively addressed.

- Through independent assessment, develop a view of current performance and compare to "measures of effectiveness."
- Determine the extent to which management is aware of current performance, and Performance Indicators are aligned with performance.
- Rate performance in each CAL area using a 4-tiered rating system – "Fully Effective," "Largely Effective," "Marginally Effective," and "Ineffective."
- Draw a conclusion about sustainability.
- Recommend actions for CAL focus areas rated other than "Fully Effective" or "Largely Effective."
- Consider whether CAL closure is appropriate, given the need for any additional actions.
- Draw overall conclusion on readiness for release from the CAL.

In addition, Strengths, Areas for Improvement, Observations and Recommendations were noted in the Assessment for each CAL area, as appropriate. The results of the Assessment are summarized in the table in Attachment 2.

In the discussion of the Assessment results that follows, the TIP applicable Action Plan Problem Statement is provided and then the Assessment findings are presented based on the measure of effectiveness ratings. There were no CAL areas or measures of effectiveness rated as "not effective."

Assessment Results

- Emergency Preparedness (EP)

TIP Action Plan Problem Statement - The CNS EP program exhibited declining performance over an extended period of time. CNS management failed to take effective corrective action to arrest the declining performance before events caused CNS to enter the degraded area of the NRC Reactor Oversight Program Action Matrix.

Emergency Preparedness was rated as Fully Effective with no Marginally Effective measures of effectiveness. The current Drill/Exercise Performance NRC Performance Indicator is above the industry average (CNS - 96.3% verses an industry average of 95.7% for 2Q04 data). Performance in all three NRC Performance Indicators demonstrates improved and sustained performance. EP use of CAP is effective and the latest trend reports do not indicate any degrading or adverse trends associated with EP CAP items. Sustainability is evidenced by the equipment, process, procedural and program improvements that have been made. Departmental performance indicators have been established to provide early indications of performance changes. Management support, involvement and commitment to the Emergency Preparedness program have improved. Several program Strengths were noted including the electronic

notification process, the weekly Emergency Response Organization (ERO) team turnover meeting, the EP staff use of computer software to improve ERO performance and the separate simulator computer for training.

- Engineering Programs

TIP Action Plan Problem Statement - The performance of CNS Engineering Programs has historically lacked sustained effectiveness.

Engineering Programs was rated as Largely Effective with no Marginally Effective measures of effectiveness. All related performance indicators were Green or White and show an improving trend. Sustainability is evidenced by process and procedure improvements, management support, involvement and commitment to the Engineering Programs and the oversight controls that are in place. Engineering Program health is reported and assessed monthly. Future strategies and needs of the program are identified so that the programs continue on a path of performance improvement.

- Plant Modifications and Configuration Control

TIP Problem Statement - there are four TIP Action Plans that address this CAL area. The problem statement for each is:

  - Resolution of degraded and non-conforming conditions requires improvement in the areas of recognition of degraded and nonconforming systems, structures and components, completeness of the evaluation of the technical bases for impact on operability and timely completion of corrective actions.

  - CNS has produced lower quality documents such as operability determinations and configuration changes when these documents have had a higher reliance on locating and understanding the assumptions used in the CNS safety analysis or required translation of these assumptions into operating procedures.

  - Implementation of the Unauthorized Modifications Follow-up Project Plan is not complete.

  - In several cases, design modifications have not been delivered and installed in a timely manner to support the operational needs of the station. Additional cases have been cited with long-standing problems with the quality/adequacy of modification packages, problems with inadequate rigor/quality of calculations and analyses and problems with addressing component obsolescence issues in a timely manner.

Plant Modifications and Configuration Control was rated Largely Effective with one measure of effectiveness, "modification, packages, calculations and analyses are rigorous and of high

quality," rated Marginally Effective. The issue that caused the measure to be rated as such concerned the quality of engineering products relative to administrative detail. Corrective actions included addressing the issue in All Hands Meetings and continuing training focusing on attention to detail. The actions were completed in June 2004. The Unauthorized Modifications Project is complete and the Project Closeout Report concluded that the quality and completeness of the project were effective. Engineering's activities are integrated with those of other line organizations through the new work management process resulting in work on the correct priorities to support the operational needs of the station. Sustainability is evidenced by procedures controlling configuration change and the station's engineering tools for maintaining, retrieving and improving documents for detailed design and licensing bases. Corrective actions to address errors related to understanding bases that affected operability determinations were effective.

Two Strengths were noted in this CAL focus area, one concerning the fact that there is a single procedure for all plant processes that can change bases and configuration and the other concerning the ATLAS database that is used to direct users to the appropriate documents for detailed design and licensing bases associated with the safety analyses.

- Corrective Action Program (CAP)

TIP Action Plan Problem Statements - There are three TIP Action Plans that address this CAL area. The problem statement for each is:

  - As an organization, CNS is not using the CAP effectively to understand problems and change behaviors for continuous improvement.

  - CNS has had a history of recurring problems that have not been eliminated or prevented by the root cause investigations and subsequent corrective actions.

  - Long-standing problems exist with applying Operating Experience, such as reporting events to the industry and using operating experience in daily activities. Additionally, Significant Operating Experience Report recommendations are not implemented and tracked consistently.

There were seven measures of effectiveness in the CAP area. Three measures of effectiveness were rated as Marginally Effective, three were rated as Largely Effective and one was rated as Fully Effective.

CAP (including utilization of industry operating experience and self-assessments) was rated Largely Effective. There was one CAL-related AFI which stated, "The current level of rigor and methodology applied to apparent causes for critical component failures have not consistently resulted in determining and correcting cause or implementing actions that address extent of

condition." This AFI is more related to the CAL area of Equipment Reliability and will be addressed in that portion of this Attachment.

The first measure of effectiveness rated Marginally Effective was, "quality and timeliness of evaluations meet established standards and expectations." This rating is based on one aspect of apparent cause analysis, the critical component failure apparent cause evaluation issue discussed in the AFI. As stated previously, this AFI will be addressed in the Equipment Reliability area.

The second measure rated Marginally Effective was, "timeliness and effectiveness of corrective actions meet established standards and expectations; repeat events are minimized due to effective problem solving, accurate root cause evaluations and sustainable actions." The 100% back-end reviews indicate CAP corrective action closure quality is improving. Backlog and On-Time Completion Performance Indicators are significantly improved and in the Green or White band. There has been a handful of recurring significant conditions and a lack of run time on current initiatives which is the basis for this rating. Equipment Reliability, as addressed in that CAL area, will require several cycles to attain desired levels of performance but the infrastructure to manage and prioritize in support of safe operation is in place.

Because of the recurrent issues, the station's Corrective Action Review Board reviewed 2003/2004 root cause evaluations to assess the adequacy of interim corrective actions and the timeliness of preventive actions. Some insights from this review regarding recurrence were that:

- Long-term preventive actions were generally solid.
- Interim actions were sometimes insufficient or were untimely.
- There are some weaknesses in the station's decision-making process that allowed interim corrective actions not to be implemented in a timely manner.

Corrective actions included reconfiguring the daily Condition Review Group meeting to review interim actions and developing a guideline for evaluating the risk of interim actions for significant conditions.

The third Marginally Effective rating was, "data/information is reviewed for trends, trends are entered into CAP and actions to address them are effective." The Assessment indicated trending is being performed using multiple data streams and that equipment trending is effectively identifying high failure components, entering them into CAP and taking action to address the issue. The Marginally Effective rating is based on problems communicating trend issues and the failure to use trend reports to full advantage, resulting in missed opportunities for more timely actions to address identified emerging trends. The issue was one that concerned the degree of effectiveness of trending through more effective communication of data. Actions have been taken to improve timeliness of communication and follow-up of trend information. These include the production of monthly trend reports and discussion and follow-up of trends at daily management meetings.

There are several reasons for rating the CAP area as Largely Effective. The first Marginally Effective area (and the related AFI) and the second Marginally Effective area are more related to the Equipment Reliability area. The third Marginally Effective area is based on a very specific trending issue related to the more effective communication of data. This issue is only a part of the overall area being evaluated. Finally, the latter two Marginally Effective areas had no AFI-level issues.

Sustainability in the CAP area is evidenced by significant performance improvement and the equipment, process, procedural, program managerial support and oversight changes that have occurred. Most importantly is a change in the station's alignment on the importance of CAP and the belief that CAP is the station tool to resolve problems and improve performance. At CNS, CAP is core business. Applicable operating experience is being effectively used at the station to minimize the potential for occurrence and/or impact.

The Corrective Action Program and processes are sound containing all of the elements necessary for identification, prioritization, evaluation, corrective action and trending. Line management has taken ownership of CAP. Infrastructure, monitoring, oversight and responsiveness are sufficient to sustain performance improvement.

One Strength was identified. The use of operating experience by all levels of the organization is fostered by information tailored to the users.

- Human Performance

Tip Action Plan Problem Statements - There are two TIP Action Plans that address this CAL area. The problem statement for each is:

  - The station has failed to recognize declining human performance and take effective corrective action.

  - CNS leadership has established a tolerance for operational challenges as indicated by the number of unacceptable levels of deficient conditions (maintenance backlog, long-term clearance order and caution tags, operator workarounds, excessive numbers of temporary modifications and control room deficiencies, etc.) and has not demonstrated high standards in conduct of operations.

Human Performance was rated Largely Effective with one measure of effectiveness rated as Marginally Effective, "human performance principles and expected behaviors are engrained in station culture." The Assessment indicated that the station has made significant improvements in understanding and recognizing human performance error prevention principles and expected behaviors. With continued reinforcement and practice, the station is on track to fully meet this Marginally Effective measure of effectiveness. Continued human performance training along

with continued reinforcement and leadership modeling provides the basis for improvement and the means to achieve full effectiveness in this measure of effectiveness area.

Lower error rates and a reduced significant event rate provide evidence of the improvements. The work force better understands and uses error prevention tools/techniques but continued improvement is needed to reach site-desired levels of performance. Human performance has a program owner, strong senior management support, standards and lines of accountability clearly established, and improved monitoring and measurement. The latter includes quarterly department ongoing self-assessments and other assessments, the management observation program, the daily management review meeting, the increased use of common cause evaluations and comparison to Entergy fleet performance. Recent external reviews have identified Strengths in the implementation of human performance initiatives and in the use of the Engineering Human Performance Trainer.

Sustainability is evidenced by the level of enthusiasm, energy and commitment by station personnel to improving human performance. Performance Indicators provide visibility and focus on human performance. CNS has established a human performance infrastructure that will insure that improvements will be sustained and future initiatives will be championed.

- Equipment Reliability

Tip Action Plan Problem Statement - There is one primary TIP Action Plan that addresses this CAL area. The remaining Equipment Reliability action plans are concerned with specific equipment issues. Actions for the specific equipment are on schedule and for some, the schedule has been accelerated (feedwater check valves and air systems). The problem statement from the primary TIP Action Plan is:

- Lack of proactive processes to resolve equipment performance problems have resulted in an inability to consistently achieve long-term reliable system and equipment operation.

Equipment Reliability was rated as Marginally Effective. There were three AFI's (accelerated review of the critical component list, review of the critical component list against current monitoring plans, and review of the critical component list to determine what predictive maintenance is required). There was also the AFI that was identified in the CAP area. Corrective actions for the first three AFI's involved accelerated review of the critical component list relative to scheduling preventive maintenance, appropriate monitoring and predictive maintenance. These actions are complete except for one concerning initiating maintenance activities for critical component functional locations with near term risk which is scheduled to be completed by September 10, 2004. For the AFI identified in the CAP area related to Equipment Reliability, implementation of a template for improved apparent cause analysis has been completed.

There were two measures of effectiveness that were rated Marginally Effective, "establishment of an integrated equipment reliability process modeled after the INPO AP-913 process established and functioning in a proactive manner to anticipate and prevent system and equipment problems" and "reliable equipment operation evidenced by plant operation that meets equipment goals." These two measures resulted in the overall rating for this CAL area.

The first Marginally Effective area is related to the three AFI's concerning accelerated review of the critical component list. The second Marginally Effective area was rated as such in that equipment plans are scheduled over an appropriate, but extensive time period and actions completed to date have had a minimal impact on improving overall equipment reliability. Equipment Reliability as addressed in the CAL would require several cycles to attain desired performance levels but the infrastructure to manage/prioritize activities in support of safe operation is in place.

Sustainability is evidenced in that a plan exists to establish the equipment reliability infrastructure, actions that are on schedule per the plan with some program elements already in place, and rigorous management oversight and monitoring of plan implementation. In addition, the Equipment Reliability group provides a dedicated focus on equipment reliability and drives many of the improvement actions underway. Finally, inclusion of high priority projects designed to improve equipment reliability on the Top Ten Technical Issues List assures management focus and funding of these activities.

New tools to assist in the identification of degraded equipment should result in improvement. It was considered that when monitoring plans are updated and system monitoring improvements effectively utilized, equipment reliability could improve at an accelerated rate. There are several performance indicators used to monitor Equipment Reliability. Actions are in place to produce substantial progress for systems that are currently Red or Yellow. Shortly after RE22, 7 of 9 will become White or better. Other related Performance Indicators, such as Unplanned Scrams, Unplanned Power Changes and Forced Loss Rate have improved with significant improvement projected by the end of the year.

Two Strengths were recognized. One is the Plant Health Committee which is an effective venue for periodic monitoring of system health to facilitate improved equipment reliability. The second concerns classifying components for preventive maintenance optimization by functional equipment groups. This will result in more efficient utilization of plant resources and fewer tagouts to support maintenance activities.

ATTACHMENT 2

CAL Assessment Summary Matrix

CAL Focus Areas *Measures of Effectiveness* **Area Effectiveness**	**Corrective Action** *7 Measures* **Largely Effective**	**Human Performance** *3 Measures* **Largely Effective**	**Equipment Reliability** *2 Measures* **Marginally Effective**	**Engineering Programs** *5 Measures* **Largely Effective**	**Design Mods / Configuration Management** *6 Measures* **Largely Effective**	**Emergency Preparedness** *3 Measures* **Fully Effective**
Fully Effective Measures	1	1	0	0	2	3
Largely Effective Measures	3	1	0	5	3	0
Marginally Effective Measures	3	1	2	0	1	0
Areas for Improvement	1	1	3	0	1	0
Observations	7	6	5	6	6	6

Correspondence Number: NLS2004093

The following table identifies those actions committed to by Nebraska Public Power District (NPPD) in this document. Any other actions discussed in the submittal represent intended or planned actions by NPPD. They are described for information only and are not regulatory commitments. Please notify the Licensing & Regulatory Affairs
Manager at Cooper Nuclear Station of any questions regarding this document or any associated regulatory commitments.

COMMITMENT	COMMITTED DATE OR OUTAGE
None	