



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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March 2, 2005

Randall K. Edington, Vice
President-Nuclear and CNO
Nebraska Public Power District
P.O. Box 98
Brownville, NE 68321

SUBJECT: ANNUAL ASSESSMENT LETTER - COOPER NUCLEAR STATION
(REPORT 05000298/2005001)

Dear Mr. Edington:

On February 2, 2005, the NRC staff completed its end-of-cycle plant performance assessment of the Cooper Nuclear Station (CNS). The end-of-cycle review for CNS involved the participation of all technical divisions in evaluating performance indicators (PIs) for the most recent quarter and inspection results for the period January 1 through December 31, 2004. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility so that you will have an opportunity to prepare for these inspections and to inform us of any planned inspections that may conflict with your plant activities.

This performance review and enclosed inspection plan do not include physical protection information. A separate end-of-cycle performance review letter designated and marked as "Exempt from Public Disclosure in Accordance with 10 CFR 2.390" will include the physical protection review and resultant inspection plan.

Overall, CNS operated in a manner that preserved public health and safety. Plant performance for the most recent quarter was within the Regulatory Response Column of the NRC's Action Matrix, based on one finding of low to moderate significance (White) in the Mitigating Systems Cornerstone, which involved a significant number of licensed operator requalification written examination failures.

While plant performance for the most recent quarter was within the Regulatory Response Column of the Action Matrix, at the beginning of the 2004 assessment cycle, CNS was in the Multiple/Repetitive Degraded Cornerstone column of the NRC's Action Matrix based on three White emergency preparedness findings existing for greater than four quarters. During the second quarter of 2004, the NRC closed these White findings based on correction of the underlying performance deficiencies. However, the NRC concluded that additional oversight was warranted while Nebraska Public Power District (NPPD) completed the actions specified in the Confirmatory Action Letter (CAL), which was issued on January 30, 2003. Accordingly, on May 3, 2004, the Executive Director for Operations approved a deviation from the Action Matrix to authorize the NRC to maintain the level of oversight of CNS consistent with the Multiple/Repetitive Degraded Cornerstone column of the Action Matrix. This enhanced level of oversight included continued NRC assessment of the strategic improvement plan, continued

assessment of the effectiveness of the CAL actions, and senior NRC management involvement in site visits and other assessment activities. The details of this decision were communicated to NPPD in a letter dated July 2, 2004.

Based on the enhanced level of oversight, the NRC concluded that NPPD had completed the commitments described in the CAL and that these actions were effective in addressing the specific performance issues. Therefore, as discussed in a public meeting held on January 25, 2005, and documented in our letter of January 28, 2005, all commitments documented in CAL 4-03-001, dated January 30, 2003, are closed. Also, since the commitments in the CAL have been satisfied, we have concluded that the enhanced level of oversight described in the Action Matrix deviation memorandum is no longer necessary. As a result, NRC oversight of CNS will be reduced to a level consistent with the Regulatory Response Column of the NRC Action Matrix based on the White finding in the Mitigating Systems Cornerstone, which was issued in March of 2004.

During the assessment period, two supplemental inspections were performed. On May 7, 2004, the NRC completed a supplemental inspection to assess the causes for and actions taken related to the PI for unplanned scrams per 7000 critical hours. This PI crossed the threshold from Green to White in the fourth quarter of 2003 and returned to Green in the first quarter of 2004. The NRC concluded that NPPD performed thorough evaluations for each of the three scrams, including a thorough root cause analysis, extent of cause, and extent of condition review to identify and implement corrective actions.

On May 12, 2004, the NRC conducted another supplemental inspection in response to a White finding involving a high number of failures on the licensed operator biennial requalification written examinations. The NRC determined that NPPD's root cause evaluation of the finding was adequate and corrective actions identified should correct the requalification program weaknesses. However, the inspection also concluded that NPPD's extent of condition and extent of cause evaluations were not completed at the time of the inspection and that other areas of the root cause lacked in-depth evaluation, including the adequacy of operator knowledge and the establishment of objective criteria to evaluate the effectiveness of the corrective actions. A followup inspection to verify the effectiveness of NPPD's additional corrective actions is in progress.

Additionally, on August 12, 2004, the NRC staff issued an inspection report with a preliminary Greater than Green finding. The finding involved the misalignment of the service water system that rendered one train of service water system inoperable for a period of 21 days. A regulatory conference was held September 27, 2004, at the NRC Region IV office. During this conference, NPPD indicated that the significance of this finding was very low. The final significance determination of this finding is pending. This finding does not represent a current safety concern because the valve lineup was restored to the normal configuration.

As updated in our Midcycle Performance Review letter, dated August 30, 2004, we advised you of our continuing concerns associated with two substantive crosscutting issues in the areas of human performance and problem identification and resolution. In the human performance area, we acknowledged the actions you had taken and noted some improvement in performance, but we also noted continuing problems. We indicated our intention to assess the effectiveness of your actions to improve the level of procedural compliance and to reinforce expectations and

standards in the performance of work. In the problem identification and resolution area, we acknowledged your past actions to address this area and the new initiatives you were implementing to increase management ownership of the corrective action program and timeliness of corrective actions. However, we noted that a number of corrective action deficiencies, primarily involving equipment problems, had not been fully resolved.

Since the issuance of our August 30, 2004, letter, the NRC has recognized that NPPD has further improved its performance in the areas of human performance and the corrective action program at CNS. These improvements were discussed during a public meeting held on January 25, 2005. At this meeting, the NRC provided the basis for concluding that NPPD had satisfied the commitments that it made to the NRC, as documented in the CAL. At this meeting, we concluded that NPPD had taken the actions confirmed in the CAL in the areas of human performance, the corrective action program, and the four other performance areas addressed by the CAL. We also concluded that performance had improved in all six areas; therefore, there was sufficient basis for closing the CAL as a regulatory tool for enhanced oversight of the safety performance of CNS. Further, we noted that there were still a number of ongoing improvement initiative actions, particularly in the area of equipment reliability. At this meeting, NPPD summarized its ongoing and new initiatives to further improve performance in all of these areas. Completion of the major actions remaining from your improvement plan will need to be verified through the baseline inspection program to confirm that improved performance will be sustained.

Notwithstanding these improvements and, as explained in detail below, we have concluded that the two substantive crosscutting issues will remain open. As discussed at the January 25, 2005, meeting, we plan to focus baseline inspections in the areas of equipment reliability, human performance, and corrective action program effectiveness.

During this assessment period, multiple findings were identified in the area of human performance. A number of these findings involved the common performance characteristic of procedural compliance, which primarily involved operations personnel. Six findings involved personnel failing to follow procedural guidance affecting the Initiating Events, Barrier Integrity, and Mitigating Systems Cornerstones. Another human performance area of concern involved problems resulting from programmatic or procedural inadequacies. For example, multiple deficiencies were identified concerning the operator training program that contributed to a significant number of licensed operator failures of a biennial requalification written examination. As previously discussed, these deficiencies resulted in a White Finding. Additional examples involved ineffective evaluation and implementation of vendor data, resulting in inadequate preventive maintenance practices and use of inappropriate materials for intended applications. These deficiencies resulted in findings involving premature failures of a station air compressor, reactor recirculation pump, reactor feed pump, and the reactor feed startup flow control valves. These deficiencies also resulted in unplanned power reductions and increased plant risk due to reduced equipment availability and reliability.

In the area of problem identification and resolution, there were a number of findings involving failures to promptly identify and correct safety-related and important to safety-related equipment problems and failures, including instances in which corrective actions were not adequate to prevent recurrence. Additionally, in a few instances, NRC involvement was necessary to ensure that adverse conditions were appropriately identified and placed into the corrective action

program, which indicates that the corrective action program was not consistently implemented throughout the CNS organization. Specifically, nine findings involved failures to promptly identify and correct adverse conditions affecting the Initiating Events and Mitigating Systems Cornerstones. Examples requiring NRC involvement included the failure to enter high pressure coolant injection procedural implementation violations and a fire watch procedural implementation violation into the corrective action program until prompted by the NRC.

Human performance deficiencies and inconsistent implementation of the corrective action program have also been identified as areas for improvement by NPPD self-assessments and NRC CAL inspections throughout the assessment period. The NRC recognizes that CNS has implemented actions to improve both human performance (e.g., human performance training, reinforcing standards and expectations, improved performance measure results, etc.) and the implementation of the corrective action program (e.g., improved root and apparent cause analyses, reduced threshold for entering problems into the corrective action system, improved performance measure results, etc.); however, until there is a reduction in the number and significance of findings associated with the previously identified areas of concern over the course of an assessment interval, the NRC will continue to focus baseline inspection efforts in these areas.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through September 30, 2006. The inspection plan is provided to minimize the resource impact on your staff and to allow for scheduling conflicts and personnel availability to be resolved in advance of inspector arrival onsite. Routine resident inspections are not listed because of their ongoing and continuous nature. The inspections in the last 9 months of the inspection plan are tentative and may be revised at the midcycle review meeting.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact Mr. Michael Hay at 817-860-8144 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/ by TPGwynn for

Bruce S. Mallett
Regional Administrator

Docket: 50-298
License: DPR-46

Enclosure:
Cooper Nuclear Station Inspection/Activity Plan

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SISP Review Completed: wcw ADAMS: / Yes G No Initials: wcw
 / Publicly Available G Non-Publicly Available G Sensitive / Non-Sensitive

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RIV:C:DRP/C	D:DRS	D:DRP	DRA	RA
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<i>/RA/</i>	<i>/RA/</i>	<i>/RA/</i>	<i>/RA/</i>	TPGwynn for
2/23/05	2/25/05	2/27/05	2/28/05	2/28/05

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Cooper
Inspection / Activity Plan
03/04/2005 - 09/30/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	OB-INIT - INITIAL EXAM		6			
1	X02288	COOPER (06/05) - INITIAL EXAM		05/09/2005	05/14/2005	Not Applicable
1	X02288	COOPER (06/05) - INITIAL EXAM		06/06/2005	06/17/2005	Not Applicable
	ALARA2 - ALARA PLANNING AND CONTROLS		1			
1	IP 7112102	ALARA Planning and Controls		04/11/2005	04/15/2005	Baseline Inspections
	EB21/02 - SSD&PCI/50.59		5			
1	IP 7111121	Safety System Design and Performance Capability		05/02/2005	05/06/2005	Baseline Inspections
1	IP 7111102	Evaluation of Changes, Tests, or Experiments		05/16/2005	05/20/2005	Baseline Inspections
1	IP 7111121	Safety System Design and Performance Capability		05/16/2005	05/20/2005	Baseline Inspections
	OB-EP2 - EMERG PREPAREDNESS PROGRAM INSPECTION		1			
1	IP 7111402	Alert and Notification System Testing		05/16/2005	05/20/2005	Baseline Inspections
1	IP 7111403	Emergency Response Organization Augmentation Testing		05/16/2005	05/20/2005	Baseline Inspections
1	IP 7111404	Emergency Action Level and Emergency Plan Changes		05/16/2005	05/20/2005	Baseline Inspections
1	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		05/16/2005	05/20/2005	Baseline Inspections
1	IP 711151	Performance Indicator Verification		05/16/2005	05/20/2005	Baseline Inspections
	PEB-52 - CNS PIR INSPECTION		6			
1	IP 71152B	Identification and Resolution of Problems		06/13/2005	06/17/2005	Baseline Inspections
1	IP 71152B	Identification and Resolution of Problems		06/20/2005	06/24/2005	Baseline Inspections
	RP TEAM - RADIATION SAFETY TEAM INSPECTION		4			
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		06/06/2005	06/10/2005	Baseline Inspections
1	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		06/06/2005	06/10/2005	Baseline Inspections
1	IP 7112202	Radioactive Material Processing and Transportation		06/06/2005	06/10/2005	Baseline Inspections
1	IP 7112203	Radiological Environmental Monitoring Program		06/06/2005	06/10/2005	Baseline Inspections
	ALARA3 - ALARA PLANNING AND CONTROLS		1			
1	IP 7112102	ALARA Planning and Controls		08/22/2005	08/26/2005	Baseline Inspections
	OB-RQ - REQUAL INSPECTION		3			
1	IP 7111111B	Licensed Operator Requalification Program		11/14/2005	11/18/2005	Baseline Inspections
	PEB - MAINTENANCE RULE BIENNIAL		1			
1	IP 7111112B	Maintenance Effectiveness		04/10/2006	04/14/2006	Baseline Inspections
	EB02/17 - PERMANENT MODS/50.59		3			
1	IP 7111102	Evaluation of Changes, Tests, or Experiments		04/24/2006	04/28/2006	Baseline Inspections
1	IP 7111117B	Permanent Plant Modifications		04/24/2006	04/28/2006	Baseline Inspections
	PEB - HX PERFORMANCE		1			
1	IP 7111107B	Heat Sink Performance		06/26/2006	06/30/2006	Baseline Inspections

This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.

Cooper
Inspection / Activity Plan
03/04/2005 - 09/30/2006

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	EP1	- EMERG PREPAREDNESS EXERCISE	3			
1	IP 7111401	Exercise Evaluation		07/17/2006	07/21/2006	Baseline Inspections
1	IP 7111404	Emergency Action Level and Emergency Plan Changes		07/17/2006	07/21/2006	Baseline Inspections
1	IP 71151	Performance Indicator Verification		07/17/2006	07/21/2006	Baseline Inspections