



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
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ARLINGTON, TEXAS 76011-4005**

March 3, 2004

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  
(NRC REPORT 05000298/2004001)**

Dear Mr. Edington:

On January 28, 2004, the NRC staff completed its end-of-cycle plant performance assessment of the Cooper Nuclear Station. The end-of-cycle review for the Cooper Nuclear Station involved the participation of all technical divisions in evaluating performance indicators for the most recent quarter and inspection results for the period from January 1 through December 31, 2003. 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.

Overall, the Cooper Nuclear Station operated in a manner that preserved public health and safety. While the Cooper Nuclear Station met all cornerstone objectives, plant performance remained within the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix as discussed further below. The Cooper Nuclear Station entered the Multiple/Repetitive Degraded Cornerstone Column of the NRC's Action Matrix on April 1, 2002. The White findings that contributed to the initial placement in the Repetitive Degraded Cornerstone were identified during the 2000 and 2001 assessment periods and were described in the annual assessment letters dated May 29, 2001, and March 4, 2002.

Upon entry into the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix, and with oversight by the NRC, you developed a plan to improve performance at the Cooper Nuclear Station. On June 10, 2002, you submitted Revision 1 of The Strategic Improvement Plan to the NRC. On August 22, 2002, we completed a supplemental inspection using Inspection Procedure 95003, "Inspection for Repetitive Degraded Cornerstones, Multiple Degraded Cornerstones, Multiple Yellow Inputs, or One Red Input." Following completion of the NRC supplemental inspection, you revised the improvement plan and submitted Revision 2 of the plan to the NRC on November 25, 2002. On January 30, 2003, we issued a Confirmatory Action Letter to Nebraska Public Power District (NPPD). The purpose of the Confirmatory Action Letter was to confirm the commitments made by NPPD regarding completion of those actions in the improvement plan developed to address regulatory performance issues. Your actions confirmed in the Confirmatory Action Letter addressed long-standing performance issues in the areas of emergency preparedness, human performance, material condition and

equipment reliability, plant modification and configuration control, corrective action program, and engineering programs. In addition to baseline inspections, the NRC conducted periodic inspections to verify completion of these actions and the effectiveness of these actions in addressing the specific performance issues. Four of these inspections were completed in 2003. On the basis of inspection activities conducted in 2003, we have concluded that you have corrected the specific performance deficiencies associated with the White inspection findings in the Emergency Preparedness Cornerstone and that performance has improved in this cornerstone. This has been demonstrated during the performance of a graded emergency preparedness exercise and confirmed during NRC baseline inspection and quarterly Confirmatory Action Letter inspections. In addition, the NPPD completed a comprehensive assessment of the Cooper Nuclear Station emergency preparedness program in accordance with the Strategic Improvement Plan and committed to in the Confirmatory Action Letter. This assessment, which was also reviewed by the NRC staff, found that performance had improved in this area.

With respect to the other five regulatory issues discussed in the Confirmatory Action Letter, NPPD is scheduled to complete the applicable improvement plan actions by March 31, 2004. Based on the results of inspections of your progress in completing the actions of the Confirmatory Action Letter, the NRC has found that NPPD is completing the actions on schedule. We have assessed that you have made some progress in addressing performance issues in these five areas, but actions taken in several areas have not yet resulted in sustained improved performance. These areas include human performance, corrective action program, material condition, and equipment reliability. Following NPPD's completion of the actions of the Confirmatory Action Letter, the NRC will conduct a comprehensive assessment of the effectiveness of these actions in addressing the performance issues. Accordingly, Cooper Nuclear Station will remain in the Multiple/Repetitive Degraded Cornerstone Column of the Action Matrix until the satisfactory completion of the actions listed in this Confirmatory Action Letter and you have demonstrated sustained improvements in plant performance.

During the most recent quarter of the inspection cycle, the NRC staff identified that the Cooper Nuclear Station crossed the threshold from Green to White for the Unplanned Scrams per 7000 Critical Hours performance indicator. Therefore, we plan to conduct a supplemental inspection in accordance with NRC Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," to review the actions taken in response to this White performance indicator. The purpose of this supplemental inspection will be to provide assurance that the root and contributing causes for the White performance indicator are understood, to provide assurance that the extent of condition and extent of cause are identified, and to provide assurance that the corrective actions are sufficient to address the root and contributing causes and prevent their recurrence.

In addition, NRC Inspection Report 05000298/2004009, dated February 11, 2004, documented a preliminary White finding associated with your failure to demonstrate satisfactory licensed operator requalification program performance as described in NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 8, Supplement 1, Examination Standard 601, Section E.3.a(1). Examination Standard 601 E.3.a(1) specifies, in part, that, for a requalification program to maintain satisfactory performance, 75 percent or greater of the participants must pass all portions of the biennial examinations. Failures during the biennial

cycle included a 36 percent failure rate on the biennial written examination. The NRC will review your response to this preliminary White finding before making a final significance determination.

In our annual assessment letters dated March 4, 2002, and March 4, 2003, we advised you of a substantive crosscutting issue in the area of Human Performance. In the area of Human Performance, our inspections confirmed that Strategic Improvement Plan action steps implemented during the third Quarter of 2003 have provided for some improvement in human performance as evidenced by an improving trend in your Human Performance Error Rate performance indicator. Specific actions that have had a positive impact included: (1) increased use of management observations in the field; (2) maintenance department implementation of job-site specific reviews of human performance tools; and (3) a monthly Management Performance Review Meeting which focuses site upper management on progress in improving site-wide human performance. We note that you are in the process of implementing additional actions to improve human performance. These activities include: (1) a human performance mock-up trainer in which site-wide staff training was initiated in November 2003; (2) a paired observation program to establish common standards and alignment on the observation and oversight of field work; (3) formal performance management skills training; (4) meetings for first-line supervisors focusing on human performance improvements; and (5) development of departmental human performance improvement plans. Despite these improvements, we identified multiple instances (at the Green finding level) throughout the assessment cycle in the Initiating Events, Mitigating Systems, Barrier Integrity, and Occupational Radiation Safety Cornerstones where the contributor to the performance problems was human performance. Examples include a number of instances of operators and workers failing to follow procedures. In one example that occurred early in the assessment cycle, plant operators failed to reduce power to less than 25 percent within 2 hours of a partial loss of feedwater heating.

Also, in our annual assessment letters dated March 4, 2002, and March 4, 2003, we advised you of a substantive crosscutting issue in the area of Problem Identification and Resolution. In that area, our inspections have generally indicated that your staff adequately identified issues. We also noted that you have implemented a number of Strategic Improvement Plan actions with the goal of improving the implementation effectiveness of your corrective action, self-assessment, and operating experience review programs. Despite these improvements, we identified multiple instances of inadequate corrective actions (at the Green finding level) throughout the assessment period in the Initiating Events, Mitigating Systems, and Barrier Integrity Cornerstones. Examples include two preventable fires and a repetitive problem with the clogging of an emergency diesel generator fuel oil transfer system filter. Causal factors associated with these and other corrective action findings primarily involved failures to identify the extent of condition, symptom-based problem solving, inadequate treatment of plant-specific and industry operating experience, and failures to adequately implement identified corrective actions. These are the very types of problems that your improvement initiatives are intended to address. Your ongoing actions to address these substantive crosscutting issues have been discussed during several public meetings, including a meeting conducted on March 1, 2004.

The NRC will continue to review the implementation of these improvement activities and any changes resulting from these activities. The reviews will be performed during the scheduled quarterly inspections of the actions described in the Confirmatory Action Letter and as part of the baseline inspection program.

In accordance with IMC 0305, "Operating Reactor Assessment Program," your plant will be discussed at the upcoming Agency Action Review Meeting. We will notify you via separate correspondence if any agency actions change as an outcome of the meeting.

As you are aware, the NRC has issued several Orders and threat advisories to enhance security capabilities and improve guard force readiness since the terrorist attacks on September 11, 2001. We have conducted inspections to review your implementation of these requirements and have monitored your actions in response to changing threat conditions. For calendar year 2004, we plan to continue inspections of Order implementation combined with newly developed portions of the security baseline inspection program. This letter advises you of our planned inspection effort resulting from the Cooper Nuclear Station's end-of-cycle review. The enclosed inspection plan details the inspections scheduled through September 30, 2005. In addition to the baseline inspections, quarterly inspections to verify the actions taken with respect to the improvement plan and the Confirmatory Action Letter will be conducted as shown. 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 due to their ongoing and continuous nature. The inspections in the last 12 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 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 this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Mr. Kriss Kennedy at 817/860-8144 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA/

Bruce S. Mallett  
Regional Administrator

Docket: 50-298  
License: DPR-46

Enclosure:  
Cooper Nuclear Station Inspection/Activity Plan

cc w/enclosure:

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ADAMS:  Yes     No    Initials: \_\_wcw\_\_  
 Publicly Available     Non-Publicly Available     Sensitive     Non-Sensitive

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RIV:C:DRP/C	D:DRS	D:DRP	DRA	RA
KMKennedy;df	DDChamberlain	ATHowell	TPGwynn	BSMallett
<b>WCWalker for</b>	<b>/RA/</b>	<b>/RA/</b>	<b>/RA/</b>	<b>/RA/</b>
2/19/04	2/26/04	3/2/04	3/2/04	3/3/04

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T=Telephone

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Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>PEB-12B - MAINTENANCE EFFECTIVENESS</b>		<b>1</b>			
1	IP 711112B	Maintenance Effectiveness		03/15/2004	03/19/2004	Baseline Inspections
	<b>PEB-05T - TRIENNIAL FIRE PROTECTION</b>		<b>5</b>			
1	IP 7111105T	Fire Protection		04/05/2004	04/09/2004	Baseline Inspections
1	IP 7111105T	Fire Protection		04/19/2004	04/23/2004	Baseline Inspections
	<b>CNS CAL - CAL QUARTERLY INSPECTION</b>		<b>4</b>			
1	IP 71152	Identification and Resolution of Problems		03/22/2004	03/26/2004	Other Routine
	<b>EB-17 - PERM. PLANT MODIFICATIONS</b>		<b>2</b>			
1	IP 711117B	Permanent Plant Modifications		03/29/2004	04/02/2004	Baseline Inspections
	<b>PSB-S1 - AA-AC-FFD-PI</b>		<b>2</b>			
1	IP 7113001	Access Authorization		04/05/2004	04/09/2004	Baseline Inspections
1	IP 7113002	Access Control		04/05/2004	04/09/2004	Baseline Inspections
1	IP 7113008	Fitness For Duty Program		04/05/2004	04/09/2004	Baseline Inspections
1	IP 71151	Performance Indicator Verification		04/05/2004	04/09/2004	Baseline Inspections
	<b>CNS CAL - CAL QUARTERLY INSPECTION</b>		<b>4</b>			
1	IP 71152	Identification and Resolution of Problems		06/21/2004	06/26/2004	Other Routine
	<b>PEB-07B - HX &amp; HEAT SINK PERFORMANCE TESTING</b>		<b>1</b>			
1	IP 7111107B	Heat Sink Performance		07/19/2004	07/23/2004	Baseline Inspections
	<b>ALARA1 - ALARA PLANNING AND CONTROLS</b>		<b>1</b>			
1	IP 7112102	ALARA Planning and Controls		09/13/2004	09/17/2004	Baseline Inspections
	<b>OB-EP2 - EP EXERCISE</b>		<b>3</b>			
1	IP 7111401	Exercise Evaluation		09/20/2004	09/24/2004	Baseline Inspections
1	IP 7111404	Emergency Action Level and Emergency Plan Changes		09/20/2004	09/24/2004	Baseline Inspections
1	IP 71151	Performance Indicator Verification		09/20/2004	09/24/2004	Baseline Inspections
	<b>OB-INIT - INITIAL EXAM</b>		<b>4</b>			
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
	<b>ACCESSPI - ACRSA/PIV</b>		<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		10/25/2004	10/29/2004	Baseline Inspections
	<b>EB08G - ISI</b>		<b>1</b>			
1	IP 7111108G	Inservice Inspection Activities - BWR		01/24/2005	01/28/2005	Baseline Inspections
	<b>ACRSA - ACCESS CONTROLS TO RAD SIGNIFICANT AREAS</b>		<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		01/24/2005	01/28/2005	Baseline Inspections
	<b>ALARA2 - ALARA PLANNING AND CONTROLS</b>		<b>1</b>			
1	IP 7112102	ALARA Planning and Controls		04/11/2005	04/15/2005	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**  
**03/01/2004 - 10/01/2005**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
				Start	End	
	<b>EB21/02</b>	<b>- SSD&amp;PCI/50.59</b>	<b>6</b>			
1	IP 7111121	Safety System Design and Performance Capability		05/02/2005	05/06/2005	Baseline Inspections
1	IP 7111121	Safety System Design and Performance Capability		05/09/2005	05/13/2005	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
	<b>OB-EP2</b>	<b>- EMERG PREPAREDNESS PROGRAM INSPECTION</b>	<b>1</b>			
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 71151	Performance Indicator Verification		05/16/2005	05/20/2005	Baseline Inspections
	<b>RP TEAM</b>	<b>- RADIATION SAFETY TEAM INSPECTION</b>	<b>4</b>			
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