



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
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ARLINGTON, TEXAS 76011-4125

September 1, 2011

Brian J. O'Grady, Vice President-Nuclear  
And Chief Nuclear Officer  
Nebraska Public Power – Cooper Nuclear Station  
72676 648A Avenue  
Brownville, NE 68321

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN –  
COOPER NUCLEAR STATION

Dear Mr. O'Grady:

On August 17, 2011, the NRC completed its mid-cycle performance review of Cooper Nuclear Station. The NRC reviewed the most recent quarterly performance indicators (PIs) in addition to inspection results and enforcement actions from July 1, 2010 through June 30, 2011. This letter informs you of the NRC's assessment of your facility during this period and its plans for future inspections at your facility. This performance review and enclosed inspection plan do not include security information. A separate letter will include the NRC's assessment of your performance in the Security Cornerstone and its security-related inspection plan.

Overall, Cooper Nuclear Station operated in a manner that preserved public health and safety and fully met all cornerstone objectives. The NRC determined the performance at Cooper Nuclear Station during the most recent quarter was within the Regulatory Response Column of the NRC's Reactor Oversight Process (ROP) Action Matrix because of a White inspection finding in the Mitigating Systems Cornerstone. That finding involves the failure to correct a previously identified problem with the operation of three motor-operated valves during certain plant fire scenarios.

On July 28, 2011, your staff notified the NRC of your readiness for a supplemental inspection to review the actions taken to address this performance issue. Therefore, in addition to ROP baseline inspections, the NRC plans to conduct a supplemental inspection in accordance with Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area." The objectives of this supplemental inspection are to provide assurance that the root causes and contributing causes of risk-significant performance issues are understood, the extent of condition and extent of cause of risk-significant performance issues are identified, and your corrective actions for risk-significant performance issues are sufficient to address the root and contributing causes and prevent recurrence. After consultation with your staff, we are scheduled to begin this inspection the week of October 17, 2011.

During the assessment period, the NRC also issued five Severity Level IV traditional enforcement violations in the same area (violations that may impact the ability of the NRC to perform its regulatory oversight function). As a result, the NRC plans to conduct Inspection Procedure 92723, "Follow Up Inspection for Three or More Severity Level IV Traditional Enforcement Violations in The Same Area in A 12-Month Period," after you notify us of your readiness for inspection of this trend. The objective of this inspection is to provide assurance that the cause(s) of the traditional enforcement violations are understood, the extent of condition and extent of cause are identified and that corrective actions are sufficient to address the cause(s).

In our assessment letter dated March 4, 2011 (ML110620053), the NRC opened an substantive cross-cutting issue in the human performance area associated with the decision-making component related to the use of conservative assumptions in decision-making [H.1(b)]. The basis for identifying this cross-cutting issue was six findings with this theme across multiple cornerstones. In that letter, the NRC stated that we will clear this substantive cross-cutting issue when you demonstrate sustainable performance improvements as evidenced by effective implementation of an appropriate corrective action plan that results in no safety significant inspection findings and a notable reduction in the overall number of inspection findings with the same common theme. The NRC also stated that we plan to perform baseline inspections in this theme after you notify us in writing of your readiness for inspection.

During this assessment period you had not fully implemented your corrective action plan, as evidenced by the identification of eleven findings with this same common theme occurring across multiple cornerstones. Since you have not demonstrated sustainable performance improvements, have not reduced the number of findings with this same common theme, and have not notified us of your readiness for inspection, the substantive cross-cutting issue in the human performance area associated with the decision-making component related to the use of conservative assumptions in decision-making [H.1(b)] will remain open. We will clear this substantive cross-cutting issue when you demonstrate sustainable performance improvements as evidenced by effective implementation of an appropriate corrective action plan that results in no safety significant inspection findings and a notable reduction in the overall number of inspection findings with the same common theme. We plan to perform baseline inspections in this theme after you notify us in writing of your readiness for inspection.

The NRC identified a cross-cutting theme in the work practices component of the human performance area. Specifically, the NRC identified four findings associated with communicating and using human error prevention techniques and/or proceeding in the face of uncertainty [H.4(a)]. This cross-cutting theme is the same theme as a substantive cross-cutting issue that was closed in our assessment letter dated March 4, 2011. In that letter, we noted that you had taken corrective action to address this theme. Although four additional findings, across multiple cornerstones, were identified during this assessment period, the performance deficiency for one of the findings occurred prior to full implementation of your corrective actions to address this issue. Since your current corrective actions bound the cause of new findings associated with this theme and since your human performance improvement plan is a living document designed to continuously assess human performance issues, the NRC does not have a concern with your staff's scope of effort and progress in addressing the cross-cutting theme. The NRC therefore determined that a substantive cross-cutting issue does not exist for this theme. The NRC will continue to monitor your staff's efforts and progress in addressing the theme until the theme criterion is no longer met.

The NRC also identified a cross-cutting theme in the corrective action program component of the problem identification and resolution area. Specifically, the NRC identified six findings associated with thoroughness of problem evaluation such that the resolutions address causes and extent of conditions [P.1(c)]. The NRC determined that a substantive cross-cutting issue does not exist because the NRC does not have a concern with your staff's scope of effort and progress in addressing the cross-cutting theme. While there were more than four inspection findings with this theme, we determined that this represents a recent performance trend. Once identified, you placed this issue into your corrective action program and are currently developing plans to address this issue. The NRC will continue to monitor your staff's efforts and progress in addressing the theme until the theme criterion is no longer met.

Since this is the second consecutive assessment letter identifying the same cross-cutting issue in human performance associated with the decision-making component related to the use of conservative assumptions in decision-making [H.1(b)], we request that you schedule a separate public meeting to discuss this issue. During this meeting, please provide details on your corrective actions to address this cross-cutting theme including schedule, milestones, and performance monitoring metrics. Also, we understand that your current corrective actions for this issue are intended to improve overall human performance at the site and that some of the actions being implemented may assist in mitigating the new themes associated with the use of human error prevention techniques [H.4(a)] and thoroughness of problem evaluations [P.1(c)] discussed in this letter. As such, we also request that you provide details on improving performance for these themes during the public meeting.

The enclosed inspection plan lists the inspections scheduled through December 31, 2012. Routine inspections performed by resident inspectors are not included in the inspection plan. The inspections listed during the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle performance review. The NRC provides the inspection plan to allow for the resolution of any scheduling conflicts and personnel availability issues. The NRC will contact you as soon as possible to discuss changes to the inspection plan should circumstances warrant any changes.

In the days following the Fukushima Dai-ichi nuclear accident in Japan, the Commission directed the staff to establish a senior-level agency task force to conduct a methodical and systematic review of the NRC's processes and regulations to determine whether the agency should make additional improvements to its regulatory system. The NRC has since completed Temporary Instruction (TI) 183, "Follow-up to Fukushima Dai-ichi Nuclear Station Fuel Damage Event," and TI-184, "Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)" at your facility. Results of these inspections can be found here: <http://www.nrc.gov/japan/japan-activities.html>. Additionally, on May 11, 2011, the agency issued NRC Bulletin 2011-01, "Mitigating Strategies," to confirm compliance with Order EA-02-026, subsequently imposed license conditions, and 10 CFR 50.54(hh)(2), and to determine the status of licensee mitigating strategies programs. On July 12, 2011, the NRC's Task Force made its recommendations to the Commission in its report, "Recommendations for Enhancing Reactor Safety in the 21<sup>st</sup> Century: The Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident." The Commission is currently reviewing the Task Force's recommendations to determine whether additional actions may be warranted.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter 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).

Please contact Vince Gaddy at 817-860-8144 with any questions you have regarding this letter.

Sincerely,

  
Kriss M. Kennedy, Director  
Division of Reactor Projects

Docket: 50-298

License: DRP-46

Enclosure: Cooper Nuclear Station Inspection/Activity Plan

Distribution via ListServ

Inspection / Activity Plan  
09/01/2011 - 12/31/2012

Unit Number	Planned Dates Start	Planned Dates End	Inspection Activity	Title	No. of Staff on Site
1	06/13/2011	09/23/2011	RP678 - RADIATION SAFETY TEAM		3
			IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1	06/13/2011	09/23/2011	IP 71124.07	Radiological Environmental Monitoring Program	
1	06/13/2011	09/23/2011	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1	10/17/2011	10/21/2011	IP 95001 - SUPPLEMENTAL INSPECTION		1
			IP 95001	Supplemental Inspection for One or Two White Inputs in a Strategic Performance Area	
1	09/17/2012	09/21/2012	EXAM - INITIAL OPERATOR EXAM		6
			X02489	INITIAL EXAM - COOPER (08/2012)	
1	10/29/2012	11/02/2012	X02489	INITIAL EXAM - COOPER (08/2012)	
1	03/05/2012	04/06/2012	EB1-21 - COMPONENT DESIGN BASIS INSPECTION		4
			IP 7111121	Component Design Bases Inspection	
1	03/05/2012	04/06/2012	IP 7111121-DesMargin	Risk-significant/low Design Margin Components	
1	03/05/2012	04/06/2012	IP 7111121-OpAction		
1	03/05/2012	04/06/2012	IP 7111121-OpIssues	Operating Experience Issues	
1	04/02/2012	04/06/2012	RS34 - RADIATION SAFETY		2
			IP 71124.03	In-Plant Airborne Radioactivity Control and Mitigation	
1	04/02/2012	04/06/2012	IP 71124.04	Occupational Dose Assessment	
1	05/21/2012	05/25/2012	EB1-07T - HEAT SINK PERFORMANCE		1
			IP 7111107T	Heat Sink Performance	
1	06/25/2012	06/29/2012	BRQ INSP - BRQ INSPECTION		2
			IP 7111111B	Licensed Operator Requalification Program	
1	07/30/2012	08/03/2012	EP-1 - BIENNIAL EP EXERCISE		3
			IP 7111401	Exercise Evaluation	
1	07/30/2012	08/03/2012	IP 7111404	Emergency Action Level and Emergency Plan Changes	
1	07/30/2012	08/03/2012	IP 71151-EP01	Drill/Exercise Performance	
1	07/30/2012	08/03/2012	IP 71151-EP02	ERO Drill Participation	
1	07/30/2012	08/03/2012	IP 71151-EP03	Alert & Notification System	
1	09/10/2012	09/21/2012	EB1-17T - 50.59 & PERM PLANT MOD		3
			IP 7111117T	Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications	
1	09/10/2012	09/21/2012	IP 7111117T-chng/tst	change/test/evaluations	
1	09/10/2012	09/21/2012	IP 7111117T-evals	evaluations	
1	09/10/2012	09/21/2012	IP 7111117T-permmods	permanent mods	
1	10/08/2012	10/12/2012	EB2-03 - LICENSE RENEWAL INSPECTION		2
			IP 71003	Post-Approval Site Inspection for License Renewal	

This report does not include INPO and OUTAGE activities.

This report shows only on-site and announced inspection procedures.

Unit Number	Planned Dates Start End	Inspection Activity	Title	No. of Staff on Site
		RS12	- RADIATION SAFETY	2

1	11/05/2012 11/09/2012	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	
1	11/05/2012 11/09/2012	IP 71124.02	Occupational ALARA Planning and Controls	
1	11/05/2012 11/09/2012	IP 71151-PR01	RETS/ODCM Radiological Effluent	
1	11/05/2012 11/09/2012	IP 71151-PR01	RETS/ODCM Radiological Effluent	

Comments:

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