

August 30, 2005

Mr. David A. Christian  
Senior Vice President and  
Chief Nuclear Officer  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN -  
KEWAUNEE POWER STATION

Dear Mr. Christian:

On August 9, 2005, the NRC staff completed its performance review of Kewaunee Power Station for the first half of the calendar year 2005 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous twelve months. 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.

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

Plant performance for the most recent quarter was within the Regulatory Response column of the NRC's Action Matrix based on one White finding within the Barrier Integrity cornerstone. This finding was associated with the inability to expeditiously close the containment hatch during reactor vessel head replacement activities during the fall 2004 refueling outage. Although plant performance was within the Regulatory Response column, the significance of findings associated with design control of the Auxiliary Feedwater System and for protection against damage from internal flooding events are still under review as part of the Significance Determination Process which, when finalized, may change our assessment of your plant's safety performance.

On August 15, 2005, we were notified by your staff of your readiness for the NRC to conduct a supplemental inspection to review the actions taken to address the containment hatch finding. Therefore, in accordance with NRC Inspection Manual Chapter 2515 and Inspection Procedure 95001, a supplemental inspection will be conducted beginning on September 6, 2005, at Kewaunee Power Station to review the causes, extent of condition, and corrective actions taken associated with this finding.

Additionally, the substantive cross-cutting issue in the area of Problem Identification and Resolution (PI&R), identified in our Annual Assessment Letter dated March 2, 2005, continued as a regulatory concern during the mid-cycle assessment. Plant performance in this cross-cutting area was assessed by expending efforts to review PI&R issues during routine baseline inspections and during the conduct of the Functional Review of Low Margin/Risk Significant Components and Human Actions inspection (TI 2515/158). Our staff identified five Green findings with cross-cutting aspects in the area of PI&R. Examples of the failure to take effective corrective actions were evident regarding prompt corrective actions to resolve several degraded and non-conforming conditions, recurrence of storage of unauthorized combustible materials above analyzed levels, non-conformance with the design basis of the containment sump screens, and recurring explosive mixtures in the waste gas system under known conditions.

In response to the identification of PI&R deficiencies, you committed to take actions to improve the overall effectiveness of your corrective action program. However, the effectiveness of these corrective actions is still indeterminate, as evidenced by the continued occurrence of PI&R issues at Kewaunee Power Station.

We will continue to closely monitor the implementation of your PI&R programs during the course of routine baseline and plant status inspection activities to more thoroughly assess your corrective action program and its effectiveness in correcting issues. In accordance with Inspection Procedure 71152, "Identification and Resolution of Problems," a biennial PI&R inspection will be conducted beginning November 28, 2005, that will focus on the noted weaknesses in developing effective corrective actions for known deficiencies. This substantive cross-cutting issue will not be cleared until sustained, improved performance is demonstrated through the identification of fewer findings related to the effectiveness of corrective actions implemented for known performance deficiencies.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through March 31, 2007. The inspection plan is provided to minimize the resource impact on your staff and allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle 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/NRC/ADAMS/index.html> (the Public Electronic Reading Room).

D. Christian

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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 Tom Kozak at 630-829-9866 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/**

Mark A. Satorius, Director  
Division of Reactor Projects

Docket No. 50-305  
License No. DPR-43

Enclosure: Kewaunee Power Station Inspection/Activity Plan

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President of City Council  
Chair, Manitowoc County Board  
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DATE	08/29/2005	08/29/2005		

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**Kewaunee**  
**Inspection / Activity Plan**  
**09/01/2005 - 03/31/2007**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>71121.01</b>	<b>- RADIOLOGICAL ACCESS CONTROL</b>	<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		09/19/2005	09/23/2005	Baseline Inspections
1	IP 71151	Performance Indicator Verification		09/19/2005	09/23/2005	Baseline Inspections
	<b>MOD/5059</b>	<b>- MODIFICATIONS AND 5059</b>	<b>1</b>			
1	IP 7111102	Evaluation of Changes, Tests, or Experiments		10/17/2005	10/21/2005	Baseline Inspections
1	IP 7111117B	Permanent Plant Modifications		10/17/2005	10/21/2005	Baseline Inspections
	<b>FY 2006</b>	<b>- KEWAUNEE INIT PREP 10/2005</b>	<b>3</b>			
1	W90125	OL - INITIAL EXAM - KEWAUNEE - OCT/NOV 2005		10/17/2005	10/21/2005	Not Applicable
	<b>71114</b>	<b>- EP EXERCISE &amp; EP PI INSP</b>	<b>2</b>			
1	IP 7111401	Exercise Evaluation		10/31/2005	11/04/2005	Baseline Inspections
1	IP 71151	Performance Indicator Verification		10/31/2005	11/04/2005	Baseline Inspections
	<b>FY 2006</b>	<b>- KEWAUNEE INIT EXAM 11/2005</b>	<b>3</b>			
1	W90125	OL - INITIAL EXAM - KEWAUNEE - OCT/NOV 2005		11/07/2005	11/18/2005	Not Applicable
	<b>PI&amp;R</b>	<b>- PROBLEM IDENTIFICATION &amp; RESOLUTION INSP</b>	<b>3</b>			
1	IP 71152B	Identification and Resolution of Problems		11/28/2005	12/16/2005	Baseline Inspections
	<b>71114</b>	<b>- BASELINE EP INSPECTION</b>	<b>1</b>			
1	IP 7111402	Alert and Notification System Testing		04/17/2006	04/21/2006	Baseline Inspections
1	IP 7111403	Emergency Response Organization Augmentation Testing		04/17/2006	04/21/2006	Baseline Inspections
1	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		04/17/2006	04/21/2006	Baseline Inspections
1	IP 71151	Performance Indicator Verification		04/17/2006	04/21/2006	Baseline Inspections
	<b>IP 71122</b>	<b>- GAS AND LIQUID EFFLUENT</b>	<b>2</b>			
1	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		04/24/2006	04/28/2006	Baseline Inspections
	<b>MAINRULE</b>	<b>- MAINTENANCE EFFECTIVENESS INSPECTION</b>	<b>1</b>			
1	IP 7111112B	Maintenance Effectiveness		05/01/2006	05/05/2006	Baseline Inspections
	<b>BI</b>	<b>- REMP AND RAD MATERIAL CONTROL</b>	<b>1</b>			
1	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control P		07/10/2006	07/14/2006	Baseline Inspections
	<b>HEATSINK</b>	<b>- BIENNIAL HEAT SINK INSPECTION</b>	<b>1</b>			
1	IP 7111107B	Heat Sink Performance		08/07/2006	08/11/2006	Baseline Inspections
	<b>ISI</b>	<b>- INSERVICE INSPECTION</b>	<b>1</b>			
1	IP 7111108P	Inservice Inspection Activities - PWR		09/04/2006	09/29/2006	Baseline Inspections
	<b>BI</b>	<b>- RAD MATERIAL TRANSPORT</b>	<b>1</b>			
1	IP 7112202	Radioactive Material Processing and Transportation		09/11/2006	09/15/2006	Baseline Inspections
	<b>71111.11</b>	<b>- LIC OPERATOR REQUAL PROGRAM EVALUATION</b>	<b>2</b>			
1	IP 7111111B	Licensed Operator Requalification Program		10/09/2006	10/13/2006	Baseline Inspections

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

**Kewaunee**  
**Inspection / Activity Plan**  
**09/01/2005 - 03/31/2007**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>SSDPC</b>	<b>- SAFETY SYS DESIGN &amp; PERFORMANCE CAPABILI</b>	<b>5</b>			
1	IP 7111121	Safety System Design and Performance Capability		11/13/2006	12/15/2006	Baseline Inspections
	<b>BI</b>	<b>- ACCESS CONTROL</b>	<b>1</b>			
1	IP 7112101	Access Control to Radiologically Significant Areas		10/30/2006	11/03/2006	Baseline Inspections
	<b>71121.03</b>	<b>- INSTRUMENTATION</b>	<b>1</b>			
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		01/08/2007	01/12/2007	Baseline Inspections