

August 31, 2007

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 14, 2007, the NRC staff completed its performance review of Kewaunee Power Station for the first half of the calendar year 2007 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous 12 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 enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only - Security Information" will include the security cornerstone review and resultant inspection plan.

Plant performance for Kewaunee Power Station for the most recent quarter was within the Degraded Cornerstone Column of the NRC's Action Matrix, based on one inspection finding of substantial safety significance (Yellow) within the Mitigating Systems cornerstone. This Yellow finding, from the first quarter of 2007, involved the failure to evaluate and repair a fuel oil leak on an emergency diesel generator.

In our Assessment Follow-up Letter dated May 16, 2007, we informed you that we would be conducting a supplemental inspection at Kewaunee using Inspection Procedure 95002, "Inspection For One Degraded Cornerstone Or Any Three White Inputs In a Strategic Performance Area," for the Yellow inspection finding. We also informed you that we would conduct a supplemental inspection using Inspection Procedure 95001, "Inspection for One or Two White Inputs in a Strategic Performance Area," for the White PI for Unplanned Scrams per 7000 Critical Hours in the Initiating Events cornerstone and for the White Mitigating System Performance Index in the Mitigating Systems cornerstone. It is anticipated that a supplemental inspection using IP 95002 for all three issues will begin in October or November pending our receipt of your letter notifying us that you are prepared for the inspection. The objectives of this inspection are to provide assurance that the root and contributing causes of risk significant performance issues are understood, the extent of condition is identified, and the corrective actions are sufficient to prevent recurrence.

Additionally, the staff has continued to identify substantive cross-cutting issues in the areas of human performance (HP) and problem identification and resolution (PI&R). During this assessment period, there were thirteen findings that were attributable, at least in part, to weaknesses in HP. Eight of the thirteen findings were identified in 2007. Because five of these findings shared the common aspect of inadequate procedures (H.2(c)) and five shared the common aspect of not following procedures (H.4(b)), the substantive cross-cutting issue in the area of HP will remain open. Furthermore, there were ten inspection findings that were attributable, at least in part, to weaknesses in PI&R. Six of these findings shared the common aspect of inadequate problem evaluation (P.1(c)). Nine of the ten inspection findings were identified in 2007. During the biennial PI&R inspection in May 2007, the inspectors concluded that you had not established either qualitative or quantitative measures for determining the effectiveness of the correction actions to prevent recurrence.

Because the NRC does not have assurance that the planned corrective actions were sufficient to address the causes of the performance deficiencies associated with the findings, these substantive cross-cutting issues will remain open until the number of findings with the same cross-cutting aspect is reduced or when the NRC gains confidence in the performance of your corrective action program to evaluate and correct problems.

A substantive cross-cutting issue in HP was first identified by us in our 2006 Mid-Cycle Performance Review letter (dated August 31, 2006, ADAMS Accession Number ML062430340) and a substantive cross-cutting issue in PI&R was first identified by us in our Annual Assessment Letter for 2004 (dated March 2, 2005, ADAMS Accession Number ML050620423). The persistence of these issues to the 2007 mid-cycle assessment indicates that actions by Kewaunee to address them have not been effective. We would like to meet with you to discuss this matter further. We will contact you with the meeting details but it should be scheduled before the IP 95002 inspection.

The enclosed inspection plan details the inspections, less those related to security, scheduled through December 31, 2008. The inspection plan is provided to 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. Of note, the plan includes an inspection using Temporary Instruction TI-150 related to reactor pressure vessel head and vessel head penetration nozzles, the PI&R inspection, the triennial fire protection inspection, and the component design bases inspection. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end-of-cycle review.

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 System (PARS) component of NRC's document system (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

The NRC is currently evaluating the scope and frequency of all the baseline inspection procedures. If the results of the evaluation, or any other circumstances, cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact James Cameron at (630) 829-9833 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

***/RA/***

James L. Caldwell  
Regional Administrator

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

Enclosure: Kewaunee Power Station Inspection/Activity Plan

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See next page

D. Christian

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NAME	MKunowski:ntp	JCameron	CPederson	JCaldwell
DATE	08/27/07	08/28/07	08/28/07	08/28/07

**OFFICIAL RECORD COPY**

Letter to Mr. David A. Christian from J. Caldwell dated August 31, 2007

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POWER STATION

cc w/encl: L. Hartz, Site Vice President  
C. Funderburk, Director, Nuclear Licensing  
and Operations Support  
T. Breene, Manager, Nuclear Licensing  
L. Cuoco, Esq., Senior Counsel  
D. Zellner, Chairman, Town of Carlton  
J. Kitsemel, Public Service Commission of Wisconsin  
State Liaison Officer, State of Wisconsin  
Mayor of Kewaunee  
City Council President  
Chair, Manitowoc County Board  
County Executive  
Chair, Kewaunee County Board  
Director, Manitowoc County Emergency  
Management Agency  
Director, Kewaunee County Emergency  
Management Agency  
City Manager of Two Rivers  
Village President of Mishicot  
INPO

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**Kewaunee**  
**Inspection / Activity Plan**  
**09/01/2007 - 12/31/2008**

Inspection Activity	Title	No. of Staff on Site	Planned Dates		Inspection Type
			Start	End	
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112102	ALARA Planning and Controls		10/01/2007	10/05/2007	Baseline Inspections
IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		10/01/2007	10/05/2007	Baseline Inspections
<b>BI EP</b>	<b>- EP EXERCISE INSPECTION / PI VERIFICATION</b>	<b>1</b>			
IP 7111401	Exercise Evaluation		12/03/2007	12/07/2007	Baseline Inspections
IP 71151-EP01	Drill/Exercise Performance		12/03/2007	12/07/2007	Baseline Inspections
IP 71151-EP02	ERO Drill Participation		12/03/2007	12/07/2007	Baseline Inspections
IP 71151-EP03	Alert & Notification System		12/03/2007	12/07/2007	Baseline Inspections
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112101	Access Control to Radiologically Significant Areas		02/11/2008	02/15/2008	Baseline Inspections
<b>ISFSI</b>	<b>- ISFSI INSPECTION</b>	<b>1</b>			
IP 60854	Preoperational Testing Of An ISFSI		04/01/2008	09/30/2008	Other Routine
IP 60854.1	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating F		04/01/2008	09/30/2008	Other Routine
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112101	Access Control to Radiologically Significant Areas		04/07/2008	04/11/2008	Baseline Inspections
IP 7112102	ALARA Planning and Controls		04/07/2008	04/11/2008	Baseline Inspections
<b>BI ENG</b>	<b>- ENGINEERING INSERVICE INSPECTION/ TI-150</b>	<b>1</b>			
IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC ORDER EA-03-		03/31/2008	04/25/2008	Safety Issues
IP 7111108P	Inservice Inspection Activities - PWR		03/31/2008	04/25/2008	Baseline Inspections
<b>PI&amp;R</b>	<b>- BIENNIAL PI&amp;R INSPECTION</b>	<b>3</b>			
IP 71152B	Identification and Resolution of Problems		05/19/2008	06/06/2008	Baseline Inspections
<b>BI ENG</b>	<b>- TRIENNIAL FIRE PROTECTION INSPECTION</b>	<b>3</b>			
IP 7111105T	Fire Protection [Triennial]		06/23/2008	07/11/2008	Baseline Inspections
<b>BI RP</b>	<b>- RADIATION PROTECTION BASELINE INSPECTION</b>	<b>1</b>			
IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		07/14/2008	07/18/2008	Baseline Inspections
IP 71151-BI01	Reactor Coolant System Activity		07/14/2008	07/18/2008	Baseline Inspections
IP 71151-OR01	Occupational Exposure Control Effectiveness		07/14/2008	07/18/2008	Baseline Inspections
IP 71151-PR01	RETS/ODCM Radiological Effluent		07/14/2008	07/18/2008	Baseline Inspections
<b>ISFSI</b>	<b>- ISFSI INSPECTION</b>	<b>1</b>			
IP 60855	Operation Of An ISFSI		07/01/2008	09/30/2008	Other Routine
IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants		07/01/2008	09/30/2008	Other Routine
<b>BI EP</b>	<b>- EP ROUTINE INSPECTION / PI VERIFICATION</b>	<b>1</b>			
IP 7111402	Alert and Notification System Testing		08/04/2008	08/08/2008	Baseline Inspections
IP 7111403	Emergency Response Organization Augmentation Testing		08/04/2008	08/08/2008	Baseline Inspections
IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		08/04/2008	08/08/2008	Baseline Inspections

**Kewaunee**  
**Inspection / Activity Plan**  
**09/01/2007 - 12/31/2008**

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IP 71151-EP01	Drill/Exercise Performance		08/04/2008	08/08/2008	Baseline Inspections
IP 71151-EP02	ERO Drill Participation		08/04/2008	08/08/2008	Baseline Inspections
IP 71151-EP03	Alert & Notification System		08/04/2008	08/08/2008	Baseline Inspections
<b>BI ENG - COMPONENT DESIGN BASES INSPECTION</b>		<b>5</b>			
IP 7111121	Component Design Bases Inspection		08/25/2008	09/26/2008	Baseline Inspections
<b>BI OL - BIENNIAL REQUAL. PROGRAM INSPECTION</b>		<b>2</b>			
IP 7111111B	Licensed Operator Requalification Program		10/13/2008	10/17/2008	Baseline Inspections
<b>BI RP - RADIATION PROTECTION BASELINE INSPECTION</b>		<b>1</b>			
IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		11/03/2008	11/07/2008	Baseline Inspections