

March 2, 2007

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

SUBJECT: ANNUAL ASSESSMENT LETTER - KEWAUNEE POWER STATION
(REPORT 05000305/2007001)

Dear Mr. Christian:

On February 13, 2007, the Nuclear Regulatory Commission (NRC) staff completed its performance review of Kewaunee Power Station. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from January 1 through December 31, 2006. 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 physical protection information. A separate letter designated as "Exempt from Public Disclosure in Accordance with 10 CFR 2.390" and marked as "Official Use Only - Security-Related Information" will include the physical protection review and resultant inspection plan.

Overall, Kewaunee Power Station operated in a manner that preserved public health and safety and met all cornerstone objectives with moderate degradation in safety performance. Plant performance for the most recent quarter was within the Regulatory Response Column of the NRC's Action Matrix due to one White PI in the Initiating Events Cornerstone.

On February 28, 2007, we were notified by your staff that your current reviews of corrective actions for the White PI would not be completed for several weeks. Therefore, we will conduct a supplemental inspection 95001 at a time to be determined, pending completion of your root cause analysis. The focus of this inspection will be the actions you have taken to correct the causes of the White PI.

While plant performance for the most recent quarter is within the Regulatory Response Column, Kewaunee's safety performance for the first 3 quarters of the 2006 assessment period was within the Degraded Cornerstone Column of the NRC's Action Matrix. This was based on one inspection finding being classified as having low to moderate safety significance (White), and one finding being classified as having substantial safety significance (Yellow), both findings within the Mitigating Systems Cornerstone. The White finding involved the failure to provide adequate design control of the auxiliary feedwater system to ensure that the pumps would have been protected from failure due to air entrainment during tornado or seismic events, or from

failure during potential runout conditions. The Yellow finding involved the failure to provide adequate design control to ensure that Class I equipment was protected against damage from tornado or seismic-induced flooding of the turbine building.

A 95002 supplemental inspection was conducted in May 2006, in response to these findings, and concluded that the NRC did not have adequate assurance that the planned corrective actions were sufficient to address the causes of the performance deficiencies associated with the violations. Consequently, these findings remained open. A followup 95002 supplemental inspection was conducted in August 2006, and concluded that adequate actions had been taken by Kewaunee to address deficiencies identified during the original 95002 inspection in May 2006. As a result, the two findings were closed and Kewaunee was removed from the Degraded Cornerstone Column on October 1, 2006.

Additionally, during this assessment period, the staff has continued to identify substantive cross-cutting issues in the areas of problem identification and resolution (PI&R) and human performance. The substantive cross-cutting issue in the PI&R area is a continuation of the cross-cutting issue discussed in our Mid-Cycle Assessment Letter, dated August 31, 2006, and first opened in our Annual Assessment Letter for 2004, dated March 2, 2005. During this assessment period, there were 11 inspection findings that were attributable, at least in part, to weaknesses in PI&R. Based on six of these findings sharing the common aspect of inadequate problem evaluation, the substantive cross-cutting issue in the area of PI&R will remain open. This 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. The NRC plans to evaluate your progress through routine baseline inspections, trend reviews, and an expanded biennial PI&R inspection in April 2007.

In our Mid-Cycle Assessment Letter, dated August 31, 2006, we advised you of a substantive cross-cutting issue in the area of human performance. During this assessment period, there were 11 inspection findings that were attributable, at least in part, to weaknesses in human performance, 5 of which were identified in the most recent 2 quarters. Based on seven findings sharing the common aspect of failure to follow procedures, and four findings sharing the common aspect of failure to provide complete, accurate, and up-to-date procedures, the substantive cross-cutting issue in the area of human performance will remain open. This substantive cross-cutting issue will remain open until the number of findings with the same cross-cutting aspect is reduced or when the NRC gains confidence in your ability to identify and correct human performance issues.

Because this end-of-cycle assessment is the fourth consecutive assessment letter identifying a substantive cross-cutting issue in the PI&R area, the Region will hold a public meeting with you in April. The purpose of the meeting will be to discuss your scope of effort and progress, to date, in addressing both substantive cross-cutting issues. We would also like to understand further action that you will take to ensure the repetitive nature of the substantive cross-cutting issues is addressed.

The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through June 30, 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. The inspections in the last 9 months of the inspection plan are tentative and may be revised at the mid-cycle assessment 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 (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).

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 Patrick Loudon at 630-829-9627 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

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. Kitsembel, 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
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Kewaunee
Inspection / Activity Plan
03/01/2007 - 06/30/2008

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	CDBI - COMPONENT DESIGN BASES INSPECTION		6			
1	IP 7111121	Component Design Bases Inspection		01/29/2007	03/02/2007	Baseline Inspections
	7112202 - RADWASTE AND TRANSPORTATION		1			
1	IP 7112202	Radioactive Material Processing and Transportation		03/05/2007	03/09/2007	Baseline Inspections
	HEATSINK - BIENNIAL HEAT SINK INSPECTION		1			
1	IP 7111107B	Heat Sink Performance		04/16/2007	04/20/2007	Baseline Inspections
	PI&R - PI&R INSPECTION		4			
1	IP 71152B	Identification and Resolution of Problems		04/30/2007	05/18/2007	Baseline Inspections
	7112102 - ACCESS CONTROL & ALARA		1			
1	IP 7112101	Access Control to Radiologically Significant Areas		05/07/2007	05/11/2007	Baseline Inspections
1	IP 7112102	ALARA Planning and Controls		05/07/2007	05/11/2007	Baseline Inspections
	7112103 - INSTRUMENTATION AND SCBA		1			
1	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		05/21/2007	05/25/2007	Baseline Inspections
	7112203 - REMP		1			
1	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control P		06/25/2007	06/29/2007	Baseline Inspections
	MAINRULE - MAINTENANCE EFFECTIVENESS INSPECTION		1			
1	IP 7111112B	Maintenance Effectiveness		07/30/2007	08/03/2007	Baseline Inspections
	7112101 - ACCESS CONTROL & ALARA		1			
1	IP 7112101	Access Control to Radiologically Significant Areas		08/06/2007	08/10/2007	Baseline Inspections
1	IP 7112102	ALARA Planning and Controls		08/06/2007	08/10/2007	Baseline Inspections
	FY 2008 - KEWAUNEE INIT EXAM 10/2007		3			
1	W90162	OL - INITIAL EXAM - KEWAUNEE - SEP/OCT 2007		10/01/2007	10/12/2007	Not Applicable
	FPI - FIRE PROTECTION INSPECTION - TRIENNIAL		3			
1	IP 7111105T	Fire Protection [Triennial]		10/01/2007	10/19/2007	Baseline Inspections
	EP BI - BASELINE EP EXERCISE INSP		1			
1	IP 7111401	Exercise Evaluation		12/03/2007	12/07/2007	Baseline Inspections
1	IP 71151-EP01	Drill/Exercise Performance		12/03/2007	12/07/2007	Baseline Inspections
1	IP 71151-EP02	ERO Drill Participation		12/03/2007	12/07/2007	Baseline Inspections
1	IP 71151-EP03	Alert & Notification System		12/03/2007	12/07/2007	Baseline Inspections
	7112101 - ACCESS CONTROL		1			
1	IP 7112101	Access Control to Radiologically Significant Areas		02/11/2008	02/15/2008	Baseline Inspections
	ISFSI - ISFSI INSPECTION		1			
1	IP 60854	Preoperational Testing Of An ISFSI		04/01/2008	06/30/2008	Other Routine
1	IP 60854.1	Preoperational Testing of Independent Spent Fuel Storage Facility Installation at Operating F		04/01/2008	06/30/2008	Other Routine

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

Kewaunee
Inspection / Activity Plan
03/01/2007 - 06/30/2008

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	ISI	- ISI & TI-150 INSPECTION	1			
1	IP 2515/150	Reactor Pressure Vessel Head and Vessel Head Penetration Nozzles (NRC ORDER EA-03-		03/31/2008	04/25/2008	Safety Issues
1	IP 7111108P	Inservice Inspection Activities - PWR		03/31/2008	04/25/2008	Baseline Inspections
	7112102	- OUTAGE ALARA	1			
1	IP 7112102	ALARA Planning and Controls		04/07/2008	04/11/2008	Baseline Inspections
	FY 2008	- KEWAUNEE INIT PREP 09/2007	2			
1	W90162	OL - INITIAL EXAM - KEWAUNEE - SEP/OCT 2007		05/19/2008	05/23/2008	Not Applicable
	FY 2008	- KEWAUNEE INITIAL LICENSE EXAMINATION	5			
1	W90181	KEWAUNEE - INITIAL EXAM - MAY/JUNE 2008		06/09/2008	06/20/2008	Not Applicable