Dominion Energy Kewaunee, Inc. N490 Highway 42, Kewaunee, WI 54216-9511



FEB 1 4 2006

U. S. Nuclear Regulatory Commission Attention: Document Control Desk Washington, DC 20555 Serial No. 06-100 KPS/LIC/RR: RO Docket No. 50-305 License No. DPR-43

DOMINION ENERGY KEWAUNEE, INC. KEWAUNEE POWER STATION LICENSEE EVENT REPORT 2005-004-01

Dear Sirs:

Pursuant to 10 CFR 50.73, Dominion Energy Kewaunee, Inc., hereby submits the following Licensee Event Report applicable to Kewaunee Power Station.

Report No. 50-305/2005-004-01

This report has been reviewed by the Plant Operating Review Committee and will be forwarded to the Management Safety Review Committee for its review.

If you have any further questions, please contact Mr. Richard Repshas at (920) 388-8217.

Very truly yours,

Kallon for

Michael G. Gaffney Site Vice President, Kewaunee Power Station

Attachment

Commitments made by this letter: NONE



Serial No. 06-100 Page 2 of 2

cc: Regional Administrator, Region III U.S. Nuclear Regulatory Commission 2443 Warrenville Road Suite 210 Lisle, IL 60532-4352

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Mr. D. H. Jaffe Project Manager U.S. Nuclear Regulatory Commission Mail Stop O-7-D-1 Washington, D. C. 20555

NRC Senior Resident Inspector Kewaunee Power Station

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ABSTRACT															
On March	15, 2005	5 with th	ie plai	nt in Refueli	ng Sl	hutdo	wn	Mode, s	stat	ion person	nel dete	ərm	ined	that th	e
Kewaunee	e plant de	esign fo	r prote	ection again	st int	ernal	floo	ding w	ould	d not ensur	e that r	equ	ired	equipn	nent would
be protect	ed from t	he post:	ulated	d failure of n	on-s	afety	rela	ted pip	ing	in the turbi	ne buik	ding	J. Hi	gh wate	er level in
the turbine	e building	would	result	in water flow	wing	into d	certa	ain Eng	ine	ered Safety	Featu	res	equi	pment	rooms.
Document	tation whi	ich con	siders	specific floo	oding	j eve	nts f	rom po	stul	ated failure	es of pla	ant	equil	oment	exists,
however,	a comple	te inter	nal pla	ant flooding	analy	ysis v	vas i	not dev	elo	ped during	or subs	seq	uent	to the	olant's

however, a complete internal plant flooding analysis was not developed during or subsequent to the plant's original design. In response to inadequate plant design, physical changes were made to minimize challenges to plant equipment and personnel in combating potential flooding events. Although this LER is not associated with an event resulting in actual flooding of any portion of the plant, the potential for certain piping and tank failures resulting in unacceptable flooding existed. A past operability evaluation has been completed to assess what equipment would have failed during postulated flooding events. The Significance Determination Process assessed the safety consequences and implications for any equipment that would have failed. This condition was determined to be characterized as Yellow. This report does not involve a safety system functional failure.

NRC FORM 366A (1-2001) U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)

TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)		PAGE (3)			
Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 of 3	
		2005	004	01		

TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Event Description

On March 15, 2005 with the plant in Refueling Shutdown Mode, station personnel determined that the Kewaunee plant design for protection against internal flooding would not ensure that required safety-related equipment would be protected from the failure of non-safety related piping [PSP] in the turbine building [NM]. High water level in the turbine building would result in water flowing into certain Engineered Safety Features (ESF) equipment rooms. The ESF equipment rooms are separated from the remainder of the turbine building by non-water-tight doors and the plant floor drain system. The ESF equipment rooms contain the auxiliary feedwater (AFW) [BA], emergency diesel generators (EDG) [EK] [DG], and both 480 volt [ED] and 4160 volt [EB] ESF switchgear [SWGR]. The water could reach levels that may result in failure of certain ESF and plant safe shutdown equipment.

Documentation that considers specific flooding events from postulated failures of plant equipment exists, however, a complete internal plant flooding analysis was not developed during or subsequent to the plant's original design. Information describing the plant's design for internal flooding was limited.

Event Analysis and Safety Significance

This event is being reported under 10 CFR 50.73(a)(2)(ii)(B), any event or condition that resulted in the plant being in an unanalyzed condition, and 10 CFR 50.73(a)(2)(v)(A), any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are that are needed to shut down the reactor and maintain it in a safe shutdown condition. This event was initially reported on March 15, 2005 as a 10 CFR 50.72 non-emergency event under criterion (b)(3)(ii)(B), unanalyzed condition, and criterion (b)(3)(v)(A), safe shutdown capability (reference Event Notification EN# 414496).

This LER is not associated with an event resulting in actual flooding of any portion of the plant. However, flooding or excessive steam releases as a result of random or seismically induced failures of non-Class 1 systems in the turbine building could impact the safety-related function of the AFW pumps, the EDGs, the 480 volt ESF buses [BU], and the 4160 volt ESF buses. Based on the Significance Determination Process, this condition was characterized as Yellow.

This report does not involve a safety system functional failure.

<u>Cause</u>

A summary of the causes for this event are as follows:

- 1) Design basis documentation regarding flooding, HELB, seismic, and tornado protection lacked detail and was difficult to retrieve. This made it difficult for the plant staff to identify the actual flooding design basis requirements and determine what actions were required to maintain compliance with them.
- 2) Some processes related to maintaining the clesign basis were weak and were inconsistent with industry standards.

NRC FORM 366A	١
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U.S. NUCLEAR REGULATORY COMMISSION

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Kewaunee Power Station		05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	3 of 3
			2005	<u> 004 -</u>	- 01	
TEXT	(If more space is required, use additional copies of NRC Form 366A) (17)					
3)	The plant staff lacked a thorough knowledge of determining the significance of problems and	of the design bas prioritizing their r	is and f esolutic	ully effective	processes	for
4)	The plant staff evaluation and resolution of ide	entified and poter	ntial pro	blems lacke	d rigor.	
5)	The PRA submitted for Kewaunee's IPE was f	flawed with respe	ect to flo	oding risk.		
<u>Corr</u>	rective Actions					
1.	The design and licensing basis for internal floo compiled.	oding to support	current	and future fl	ooding des	ign was
2.	Seismic qualification of selected piping and co	omponents was c	omplete	ed.		
3.	Design modifications to protect Class 1 plants USAR were completed. This included:	systems and com	ponent	s as defined	in the Kew	aunee
	 Installation of flood barriers at the doors to safeguards buses, the safe shutdown pane volt safeguard buses 1-5 and 1-6. 	rooms containin el, emergency di	g auxili əsel gei	ary feedwate nerators 1A	er pumps, 4 and 1B, and	80 volt d 4160
	 Installation of check valves in selected floo containing Class 1 equipment. 	or drain lines con	necting	the turbine I	building and	l rooms
	 Installation of circuitry which trips the circul building basement. 	lating water pum	ps on h	igh water lev	el in the tu	bine
	 Rerouting of AFW lubricating oil cooler dra AFW pump rooms. 	ain lines to the tur	bine bu	uilding to pre	vent floodin	g in the
4.	In a letter dated November 14, 2005 (Letter fro NRC, Kewaunee Power Station Update on Imp ML053190099), an update was provided on in 2005 and identified additional improvement ac LER.	om W. R. Matthe provement Initiat itiatives that were tions intended to	ws (Dor ives (Al e initiall addres	minion Energ DAMS Acces y committed as the condit	gy Kewaune ssion No. to on Marc ions identifi	ee) to h 18, ed in this
<u>Simi</u>	lar Events					
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