

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



NOV 16 2005

U. S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, DC 20555

Serial No. 05-752  
KPS/LIC/RR: RO  
Docket No. 50-305  
License No. DPR-43

**DOMINION ENERGY KEWAUNEE, INC.**  
**KEWAUNEE POWER STATION**  
**LICENSEE EVENT REPORTLER 2005-015-00**

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/LER 2005-015-00

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 Rick Repshas at (920) 388-8217.

Very truly yours,

A handwritten signature in black ink, appearing to read "M. Gaffney", written over the printed name.

Michael G. Gaffney  
Site Vice President, Kewaunee Power Station

Attachment

Commitments made by this letter: NONE

IE22

cc: Mr. J. L. Caldwell  
Administrator Region III  
U.S. Nuclear Regulatory Commission  
2443 Warrenville Road  
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Mr. S. C. Burton  
NRC Senior Resident Inspector  
Kewaunee Power Station

<b>NRC FORM 366</b> (6-2004)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		<b>APPROVED BY OMB NO. 3150-0104</b>		<b>EXPIRES 6-30-2007</b>								
<b>LICENSEE EVENT REPORT (LER)</b>  (See reverse for required number of digits/characters for each block)				Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by Internet e-mail to <a href="mailto:infocollects@nrc.gov">infocollects@nrc.gov</a> , and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0066), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.										
<b>FACILITY NAME (1)</b> Kewaunee Power Station				<b>DOCKET NUMBER (2)</b> 05000305		<b>PAGE (3)</b> 1 of 4								
<b>TITLE (4)</b> Both Trains of Component Cooling Water Inoperable During Shifting of Running Equipment														
<b>EVENT DATE (5)</b>			<b>LER NUMBER (6)</b>			<b>REPORT DATE (7)</b>			<b>OTHER FACILITIES INVOLVED (8)</b>					
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER				
09	18	2005	2005	-- 015	-- 00	11	16	2005	FACILITY NAME	DOCKET NUMBER				
<b>OPERATING MODE (9)</b>			<b>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR .: (Check all that apply) (11)</b>											
<b>POWER LEVEL (10)</b>			20.2201(b)			20.2203(a)(3)(ii)			50.73(a)(2)(ii)(B)			50.73(a)(2)(ix)(A)		
20.2201(d)			20.2203(a)(1)			50.36(c)(1)(i)(A)			50.73(a)(2)(iv)(A)			50.73(a)(2)(x)		
20.2203(a)(2)(i)			20.2203(a)(2)(ii)			50.36(c)(1)(ii)(A)			50.73(a)(2)(v)(A)			73.71(a)(4)		
20.2203(a)(2)(iii)			20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(v)(B)			73.71(a)(5)		
20.2203(a)(2)(v)			20.2203(a)(2)(vi)			50.46(a)(3)(ii)			50.73(a)(2)(v)(C)			OTHER		
20.2203(a)(2)(vii)			20.2203(a)(3)(i)			50.73(a)(2)(i)(A)			X 50.73(a)(2)(v)(D)			Specify in Abstract below or in NRC Form 366A		
20.2203(a)(2)(viii)			20.2203(a)(2)(viii)(B)			50.73(a)(2)(vii)			50.73(a)(2)(viii)(A)			50.73(a)(2)(viii)(B)		
20.2203(a)(2)(ix)			20.2203(a)(2)(x)			50.73(a)(2)(i)(B)			50.73(a)(2)(i)(C)			50.73(a)(2)(viii)(B)		
20.2203(a)(2)(xi)			20.2203(a)(2)(xii)			50.73(a)(2)(i)(C)			50.73(a)(2)(viii)(A)			50.73(a)(2)(viii)(B)		
20.2203(a)(2)(xiii)			20.2203(a)(2)(xiv)			50.73(a)(2)(ii)(A)			50.73(a)(2)(viii)(B)			50.73(a)(2)(viii)(B)		
<b>LICENSEE CONTACT FOR THIS LER (12)</b>														
<b>NAME</b> Rachaelle Braenne/Rick Repshas - Licensing								<b>TELEPHONE NUMBER (Include Area Code)</b> (920) 388- 8839 / 8217						
<b>COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)</b>														
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX
<b>SUPPLEMENTAL REPORT EXPECTED (14)</b>										<b>EXPECTED SUBMISSION DATE (15)</b>		MONTH	DAY	YEAR
YES (If yes, complete EXPECTED SUBMISSION DATE).					X					DATE (15)				
<b>ABSTRACT</b> On Sunday, September 18, 2005 while the plant was operating at full power, "Diesel Generator 'A' Availability Test" was being performed in conjunction with the "Bi-Monthly Rotation of Running Equipment." This diesel generator test (not normally run on Sunday) was scheduled from 0700 – 1359. Shifting of running equipment is routinely scheduled every 1st and 3rd Sunday of the month. At 0709, as part of the diesel generator test, 'A' diesel generator was declared inoperable and was restored to an operable status at 1345. In parallel, Operations proceeded through the normal component cooling water (CCW) operating procedure for shifting running equipment with peer checking by the Unit Supervisor. 'B' CCW pump discharge valve CC-4B was closed and the 'B' CCW pump was stopped. CC-4B was then reopened per procedure at approximately 0915. Total duration at which the pump discharge valve was closed is estimated to be approximately 3 minutes. Closure of the pump discharge valve CC-4B rendered the 'B' CCW pump inoperable. The 'A' CCW pump became inoperable when the redundant piece of equipment ('B' CCW pump) was inoperable with the 'A' diesel generator (emergency power supply for 'A' CCW pump) inoperable for testing. Opening of CC-4B returned both the 'A' and 'B' CCW pumps to operable status. The cause of this event has been determined to be inadequate procedural guidance. Procedure revisions to the normal operating procedures will be performed. This event is considered a Safety System Functional Failure. Both trains of CCW were inoperable which could have prevented the fulfillment of the residual heat removal safety function and mitigating the consequences of an accident safety function.														

**LICENSEE EVENT REPORT (LER)**  
**TEXT CONTINUATION**

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Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 of 4
		2005	-- 015	-- 00	

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

**Event Description:**

On Sunday, September 18, 2005 while the plant was operating at full power, Operations performed a pre-shift brief identifying the activities for the day. The major activity was "Diesel Generator 'A' Availability Test." This diesel generator [DG] test is not normally run on a Sunday and was scheduled from 0700 – 1359. This task was rescheduled for Sunday due to emergent work in the substation [FK]. "Bi-Monthly Rotation of Running Equipment" was also scheduled for Sunday. This task is routinely scheduled every 1st and 3rd Sunday of the month. Shifting running equipment is scheduled as an all day task with the understanding that equipment will be shifted as plant conditions allow.

At 0709, as part of the diesel generator test, 'A' diesel generator was declared inoperable. Work on 'A' diesel generator continued as planned. 'A' diesel generator was returned to an operable status at 1345. In parallel, Operations proceeded through the normal component cooling water (CCW) [CC] operating procedure for shifting running equipment with peer checking by the Unit Supervisor. 'B' CCW pump discharge valve CC-4B was closed and the 'B' CCW pump was stopped. CC-4B was then reopened per procedure at approximately 0915. Total duration at which the pump discharge valve was closed is estimated to be approximately 3 minutes. During this time, both the 'A' CCW pump and 'B' CCW pump were inoperable.

**Event Analysis:**

This condition is being reported in accordance with 10 CFR 50.73(a)(2)(i)(B), "Any operation or condition which was prohibited by the plant's Technical Specifications" and 10 CFR 50.73(a)(2)(v)(B)&(D), "Any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to remove residual heat and mitigate the consequences of an accident."

The component cooling system is designed to remove residual heat from the reactor coolant system, cool letdown flow and provide cooling to dissipate waste heat from reactor coolant system components. This system consists of two trains of equipment and cooling lines to various components with a shared component cooling surge tank. One pump and one heat exchanger can provide 100% heat removal capability during normal operation. Two pumps and two heat exchangers are used during plant shutdown for removal of residual and sensible heat, however safe shutdown of the plant is not affected should one pump or one heat exchanger become inoperable. Normal full power operation requires the use of one pump with the other pump in standby.

Both component cooling water pumps are powered from two 480 volt buses, 1-51 and 1-61. The normal power supply for these buses are 4160 volt buses 1-5 and 1-6, which are connected via bus main breakers to the main auxiliary, reserve auxiliary and tertiary auxiliary transformers. Emergency power for buses 1-51 and 1-61 are from the diesel generators via 4160 volt buses 1-5 and 1-6. Each of the two diesel generators, as a backup to the normal power supply, is capable of sequentially starting and supplying the power requirements for one complete set of engineered safety features equipment.

Closing of the pump discharge valve CC-4B rendered the 'B' CCW pump inoperable since closure of CC-4B prevented the 'B' CCW train from performing its analyzed safety function. During the time at which the 'B' CCW pump was inoperable, the 'A' diesel generator was inoperable for testing. The 'A' CCW pump was

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inoperable during the time that CC-4B was closed as the redundant piece of equipment ('B' CCW pump) was inoperable while the "A" emergency power supply was inoperable. Operability of both the 'A' and 'B' CCW pumps was established upon opening CC-4B. Technical Specification 3.3.d requires that two CCW trains be operable while the plant is maintaining criticality. Technical Specification 3.7.c requires that when an ESF piece of equipment does not have both its normal and emergency power available, it may be considered operable only when its redundant piece of equipment remains operable. For approximately three minutes while CC-4B was closed and 'A' diesel generator was inoperable, both CCW pumps were inoperable which is prohibited by the Kewaunee Power Station Technical Specifications.

**Safety Significance:**

Although both CCW Pumps were inoperable based on TS requirements, the event was of minimal safety significance. Both pumps were inoperable for approximately three minutes. 'A' CCW pump was running and 'B' CCW pump was out-of-service for the time CC-4B was closed. Required equipment was available during the evolution as well as the Auxiliary Operator being in a position to open the discharge valve returning both trains of CCW to an operable status.

This event is considered a Safety System Functional Failure. Both trains of CCW were inoperable which could have prevented the fulfillment of the residual heat removal safety function and mitigating the consequences of an accident safety function.

**Cause:**

Inadequate procedure content resulted in shutting CC-4B with the 'A' diesel generator inoperable. Specifically, the step for closing CC-4B did not contain sufficient detail to keep the crew from operating in the knowledge-based mode.

**Corrective Actions:**

1. The normal operating procedure for the component cooling water system will be revised to add steps to check redundant train components are operable and required emergency power is available prior to taking the current train out of service.
2. The extent of condition review identified a similar vulnerability with the control room air conditioning system [VI] [ACU]. The normal operating procedure for this system will be revised to add steps to check redundant train components are operable and required emergency power is available prior to taking the current train out of service.

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## Similar Events:

LER 77-15, CC Pump 1B discharge valve CC-4B found closed.

LER 98-001-00, Two Component Cooling Water Pumps Out of Service Simultaneously – TS Violation.

LER 1998-012-00, Inadequate Pre-job Brief Results in Redundant Component Cooling Pumps Being Inoperable for Approximately Five Minutes.