



APR 16 2007

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

Serial No. 07-0264
KPS/LIC/RS: RO
Docket No. 50-305
License No. DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
LICENSEE EVENT REPORT 2006-009-01

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. 50-305/2006-009-01

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 Sattler at (920) 388-8121.

Very truly yours,

Leslie N. Hartz
Site Vice President, Kewaunee Power Station

Attachment

Commitments made by this letter: NONE

IE22

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

Mr. R. F. Kuntz
Project Manager
U.S. Nuclear Regulatory Commission
Mail Stop O 7D1A
Washington, D. C. 20555

NRC Senior Resident Inspector
Kewaunee Power Station

LICENSEE EVENT REPORT (LER)

(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 infocollects@nrc.gov, 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.

FACILITY NAME (1)

Kewaunee Power Station

DOCKET NUMBER (2)

05000305

PAGE (3)

1 of 5

TITLE (4)

Fuel oil leak on Swedgelock fitting renders Emergency Diesel Generator A inoperable

EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)																																					
MO	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MO	DAY	YEAR	FACILITY NAME	DOCKET NUMBER																																				
08	17	2006	2006	009	01	04	16	2007	FACILITY NAME	DOCKET NUMBER																																				
<p>OPERATING MODE (9) N</p> <p>POWER LEVEL (10) 100</p> <p>THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR : (Check all that apply) (11)</p> <table border="1"> <tr> <td>20.2201(b)</td> <td>20.2203(a)(3)(ii)</td> <td>50.73(a)(2)(ii)(B)</td> <td>50.73(a)(2)(ix)(A)</td> </tr> <tr> <td>20.2201(d)</td> <td>20.2203(a)(4)</td> <td>50.73(a)(2)(iii)</td> <td>50.73(a)(2)(x)</td> </tr> <tr> <td>20.2203(a)(1)</td> <td>50.36(c)(1)(i)(A)</td> <td>50.73(a)(2)(iv)(A)</td> <td>73.71(a)(4)</td> </tr> <tr> <td>20.2203(a)(2)(i)</td> <td>50.36(c)(1)(ii)(A)</td> <td>50.73(a)(2)(v)(A)</td> <td>73.71(a)(5)</td> </tr> <tr> <td>20.2203(a)(2)(ii)</td> <td>50.36(c)(2)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(v)(B)</td> <td rowspan="5">OTHER Specify in Abstract below or in NRC Form 366A</td> </tr> <tr> <td>20.2203(a)(2)(iii)</td> <td>50.46(a)(3)(ii)</td> <td>50.73(a)(2)(v)(C)</td> </tr> <tr> <td>20.2203(a)(2)(iv)</td> <td>50.73(a)(2)(i)(A)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)</td> </tr> <tr> <td>20.2203(a)(2)(v)</td> <td><input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)</td> <td>50.73(a)(2)(vii)</td> </tr> <tr> <td>20.2203(a)(2)(vi)</td> <td>50.73(a)(2)(i)(C)</td> <td>50.73(a)(2)(viii)(A)</td> </tr> <tr> <td>20.2203(a)(3)(i)</td> <td>50.73(a)(2)(ii)(A)</td> <td>50.73(a)(2)(viii)(B)</td> <td></td> </tr> </table>											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)(4)	50.73(a)(2)(iii)	50.73(a)(2)(x)	20.2203(a)(1)	50.36(c)(1)(i)(A)	50.73(a)(2)(iv)(A)	73.71(a)(4)	20.2203(a)(2)(i)	50.36(c)(1)(ii)(A)	50.73(a)(2)(v)(A)	73.71(a)(5)	20.2203(a)(2)(ii)	50.36(c)(2)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(B)	OTHER Specify in Abstract below or in NRC Form 366A	20.2203(a)(2)(iii)	50.46(a)(3)(ii)	50.73(a)(2)(v)(C)	20.2203(a)(2)(iv)	50.73(a)(2)(i)(A)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	20.2203(a)(2)(v)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	50.73(a)(2)(vii)	20.2203(a)(2)(vi)	50.73(a)(2)(i)(C)	50.73(a)(2)(viii)(A)	20.2203(a)(3)(i)	50.73(a)(2)(ii)(A)	50.73(a)(2)(viii)(B)	
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LICENSEE CONTACT FOR THIS LER (12)

NAME Richard Sattler	TELEPHONE NUMBER (Include Area Code) (920) 388- 8121
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COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX

SUPPLEMENTAL REPORT EXPECTED (14)

YES (If yes, complete EXPECTED SUBMISSION DATE).	<input checked="" type="checkbox"/> NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
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ABSTRACT

At 17:35 on 8/17/06, after approximately 10 minutes of operation during a planned surveillance test of the train A emergency diesel generator, a previously identified minor fuel oil leak (approximately 1 drop/minute) increased and required an unplanned engine shutdown. The emergency diesel generator had been declared inoperable at the start of the surveillance test and remained so following the leak. At its maximum, the leakrate was estimated at between 0.12 and 0.25 gpm.

By 05:53 on 8/18/06, the leak had been repaired, the surveillance test completed, and the emergency diesel generator restored to OPERABLE status.

The fuel oil leak was initially identified on 6/28/06 at 16:48. Between that initial discovery and the engine shutdown on 8/17/06, the emergency diesel generator had been operated four times with a cumulative run time of approximately 3.9 hours.

On 10/26/06, the leak was determined to be from an approximately 350 degree circumferential crack in the copper tubing of the fuel supply line inside a 3/8" fitting to a pressure gauge. On 12/15/06, the cracked tubing was tested on a similar diesel generator. The tubing fully severed after approximately one hour of diesel generator operation at rated load. Thus it is concluded that the EDG was not capable of meeting its design basis between the originally identified leak on 6/28/06 and its return to operability on 8/18/06.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1) Kewaunee Power Station	DOCKET NUMBER (2) 05000305	LER NUMBER (6)			PAGE (3) 2 of 5
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	
		2006	-- 009	-- 01	

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

EVENT DESCRIPTION

At 17:35 on 8/17/06, after approximately 10 minutes of operation during a planned surveillance test on the train A emergency diesel generator (EDG) [DG], a previously identified minor fuel oil leak increased and required an unplanned engine shutdown. The EDG had been declared inoperable at the start of the surveillance test and remained so following the leak. At its maximum, the leakrate was estimated at between 0.12 and 0.25 gpm. The leak did not atomize.

By 05:53 on 8/18/06, the leak had been repaired, the surveillance test completed, and the EDG restored to OPERABLE.

The fuel oil leak (approximately 1 drop/minute) was initially identified on a copper tubing Swagelock fitting (downstream of the engine-driven fuel oil pump [P] and the fuel priming pump), on 6/28/06 and a Work Order was written to repair it. Between initial discovery on 6/28/06 and the engine shutdown on 8/17/06, the EDG had been operated four times with a cumulative run time of approximately 3.9 hours.

On 10/26/06, the leak failure mechanism was determined to be an approximately 350 degree circumferential crack in the copper tubing of the fuel supply line inside a 3/8" fitting to a pressure gauge. On 12/15/06, the cracked tubing was tested on a similar diesel generator. The tubing fully severed after approximately one hour of diesel generator operation at rated load. Thus it is concluded that the EDG was not capable of meeting its design basis between the originally identified leak on 6/28/06 and its return to operability on 8/18/06.

EVENT ANALYSIS

This event is being reported under § 50.73(a)(2)(v)(B) and (D) as a 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.

This event is also being reported under § 50.73(a)(2)(i)(B) as an operation which was prohibited by the plant's Technical Specifications.

The following train B safety equipment was also inoperable between 6/28/06 at 16:48 and 8/18/06 @ 05:53:

Equip	Inoperable	Operable	Duration (hrs)	Total (hrs)
EDG B	6/29/06 @ 9:27	6/30/06 @ 00:56	15.48	29.97
EDG B	7/27/06 @ 7:00	7/27/06 @ 15:49	8.82	
EDG B	8/13/06 @ 8:54	8/13/06 @ 14:34	5.67	
SW [BI] Train B	7/23/06 @ 12:30	7/23/06 @ 22:00	9.50	39.77
SW Train B	7/26/06 @ 3:47	7/27/06 @ 4:35	24.80	
SW Train B	8/9/06 @ 7:46	8/9/06 @ 11:49	4.05	
SW Train B	8/13/06 @ 8:55	8/13/06 @ 10:20	1.42	

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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

Equip	Inoperable	Operable	Duration (hrs)	Total (hrs)
RHR [BP] Pmp B	7/13/06 @ 8:43	7/14/06 @ 00:41	15.97	20.52
RHR Pump B	7/12/06 @ 15:51	7/12/06 @ 16:33	0.70	
RHR Pump B	7/27/06 @ 13:35	7/27/06 @ 16:31	2.93	
RHR Train B	7/12/06 @ 14:54	7/12/06 @ 15:25	0.52	
RHR Train B	8/13/06 @ 13:12	8/13/06 @ 13:36	0.4	
ICS [BE] Pump B	7/12/06 @ 14:46	7/12/06 @ 15:37	0.85	0.85
SI [BQ] Pump B	7/14/06 @ 1:03	7/14/06 @ 1:04	0.02	1.42
SI Train B	8/10/06 @ 9:41	8/10/06 @ 11:05	1.4	
Chg [CB] Pump B	7/11/06 @ 7:04	7/11/06 @ 15:58	8.9	19.3
Chg Pump B	8/8/06 @ 7:09	8/8/06 @ 17:35	10.4	
CC [CC] Pump B	7/02/06 @ 10:15	7/02/06 @ 10:30	0.25	3.98
CC Pump B	7/28/06 @ 23:40	7/28/06 @ 23:45	0.08	
CC Train B	7/30/06 @ 21:39	7/30/06 @ 23:30	1.85	
CC Train B	8/13/06 @ 00:04	8/13/06 @ 00:10	0.10	
CC Train B	8/13/06 @ 10:21	8/13/06 @ 12:03	1.7	
TDAFW [BA] Pmp	7/3/06 @ 8:58	7/3/06 @ 9:07	0.15	0.65
TDAFW Pump	7/10/06 @ 9:18	7/10/06 @ 9:26	0.13	
TDAFW Pump	8/3/06 @ 12:32	8/3/06 @ 12:45	0.22	
TDAFW Pump	8/7/06 @ 10:24	8/7/06 @ 10:33	0.15	
AFW [BA] Pmp B	7/10/06 @ 8:49	7/10/06 @ 8:56	0.12	2.16
AFW Train B	7/27/06 @ 10:15	7/27/06 @ 10:45	0.5	
AFW Pump B	8/7/06 @ 10:00	8/7/06 @ 10:07	0.12	
AFW Pump	8/13/06 @ 8:55	8/13/06 @ 10:20	1.42	
Sfgds [JE] Train B	7/11/06 @ 9:18	7/11/06 @ 11:11	1.88	5.43
Sfgds Train B	8/8/06 @ 9:29	8/8/06 @ 13:02	3.55	

With train A EDG inoperable, the plant should have entered Tech Spec LCO 3.7.b.2, which states: "One diesel generator may be inoperable for a period not exceeding 7 days provided the other diesel is tested daily to ensure OPERABILITY and the engineered safety features associated with this diesel generator are OPERABLE." During this event, train A EDG was inoperable in excess of 7 days and train B EDG was never tested for operability under this LCO.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	4 of 5
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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

Exceeding the 7 day LCO for train A EDG, and each of the occasions above involving concurrently inoperable train B engineered safety features, should have resulted in entry into Tech Spec LCO 3.0.c, which did not occur. Tech Spec LCO 3.0.c states:

When a LIMITING CONDITION FOR OPERATION is not met, and a plant shutdown is required except as provided in the associated ACTION requirements, within one hour action shall be initiated to place the unit in a MODE in which the specification does not apply by placing it, as applicable, in:

1. At least HOT STANDBY within the next 6 hours,
2. At least HOT SHUTDOWN within the following 6 hours, and
3. At least COLD SHUTDOWN within the subsequent 36 hours.

SAFETY SIGNIFICANCE

The overall incremental core damage probability (IDCP) for the time period in question is 2.2E-5, which is categorized in the NRC Significance Determination Process as Substantial safety significance.

CAUSE

The direct cause of the leak was determined to be circumferential cracking due to vibration induced fatigue.

The root cause for the event was that critical information was not known by decision makers - as evidenced by the following:

- Failure to initiate a CAP for the initial leak on 6/28/06 (missed opportunity for equipment operability evaluation)
- Training does not cover common industry-known tubing failure mechanisms.
- Managers and supervisors were not knowledgeable of OE from this type of failure event.
- The work request screen team did not walk down the equipment deficiency or recognize the need to do so, and did not communicate the proper sense of urgency to the rest of the organization.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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CORRECTIVE ACTIONS

For the direct cause, the leak was repaired, an operability test was performed, and the EDG was restored to OPERABLE status.

For the root cause, critical information will be made available to decision makers via the following changes:

- New software, (MAXIMO and CRS), will be implemented to ensure equipment issues are always captured within the corrective action system.
 - Until CRS and MAXIMO are implemented, the following interim corrective actions have been taken:
 - On a daily basis, Outage and Planning reviews all new work requests to ensure CAPs are written when required.
 - If a CAP was not generated, the work request initiator is contacted to write a CAP and include the CAP number on the work request.
 - The CAP & Work Order process has been reiterated several times in the following:
 - A plant standdown
 - D-15 publications
 - The daily Plan Of the Day meetings
- Material will be added to Lesson Plans to assure workers are aware of failure mechanisms of tubing compression fittings, signs of failure and interpretation of those signs.
- Supervisors and managers will receive training on this event.
- Work request screen team members will receive training on this event.

PREVIOUS SIMILAR EVENTS

LER 79-025, Non-isolatable leak was discovered on the lube oil sample line for one of the two diesel generator sets