



SEP 07 2006

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

Serial No. 06-739
KPS/LIC/RS: RO
Docket No. 50-305
License No. DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
LICENSEE EVENT REPORT 2006-006-00

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. 50-305/2006-006-00

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 Mr. Richard Repshas at (920) 388-8217.

Very truly yours,

A handwritten signature in black ink, appearing to read "L. Hartz".

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. 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

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 3

TITLE (4)

Safety Injection accumulator level to volume correlation and alarm setpoints non-conservative

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
07	13	2006	2006	-- 006	-- 00	09	07	2006	FACILITY NAME	DOCKET NUMBER
OPERATING MODE (9)		N		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR : (Check all that apply) (11)						
POWER LEVEL (10)		100		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)		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)		50.73(a)(2)(v)(D)		
				20.2203(a)(2)(v)	X	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)		

LICENSEE CONTACT FOR THIS LER (12)

NAME

Richard Sattler

TELEPHONE NUMBER (Include Area Code)

(920) 388-8121

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).	X	NO	EXPECTED SUBMISSION DATE (15)	MONTH	DAY	YEAR
	X					

ABSTRACT

On July 13, 2006, with the plant at 100 percent power, non-conservative values were identified for the safety injection accumulator levels due to incorrect volume to level correlations and incorrect level alarm setpoints. Questions had been raised on how to determine the proper indicated safety injection accumulator level to ensure compliance with the Technical Specification requirement of 1225 to 1275 cubic feet for each accumulator. Accumulator level is indicated from instrumentation in percent level. Two operator aids provide a correlation graph of cubic feet versus percent indicated level. Per the operator aids, the low level limit in accumulator A was 25% and the high level limit was 50%. The low level limit in accumulator B was 22% and the high level limit was 50%. Additionally, there are low and high accumulator level alarms at 26% and 50% respectively. If either alarm value was reached, level was established between 38% and 40%. Analysis currently shows that minimum required level to meet the Technical Specification is 39% for accumulator A and 42% for accumulator B and that the maximum required level is 60% for accumulator A and 62% for accumulator B. A new normal operating range has been established between 46% and 48% accumulator level.

The causes of this event are; a 1978 set point methodology not taking into account instrument loop accuracy tolerances, and failure to update the operator aids and level alarm setpoints after an issue was identified in 1991 (calibration of the accumulator level instruments inaccurate due to not being properly pressure compensated for Nitrogen cover gas).

This 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." There was no safety system functional failure.

LICENSEE EVENT REPORT (LER)
TEXT CONTINUATION

FACILITY NAME (1)	DOCKET NUMBER (2)	LER NUMBER (6)			PAGE (3)
Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 of 3
		2006	-- 006	-- 00	

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

Event Description:

On July 13, 2006, with the plant at 100 percent power, non-conservative values were identified for the safety injection accumulator [ACC] levels. The non-conservatism was caused by incorrect volume to level correlations and resulted in incorrect level alarm [LA] setpoints. Questions had been raised on how to determine the proper indicated safety injection accumulator level to ensure compliance with the Technical Specification requirement of 1225 to 1275 cubic feet volume for each accumulator. Accumulator level is indicated from instrumentation in percent level. Two operator aids provide a correlation graph of cubic feet versus percent level. The operator aids identified the low level limit in accumulator A as 25% and the high level limit as 50%. The low level limit in accumulator B was identified as 22% and the high level limit as 50%. Additionally, there were low and high accumulator level alarms at 26% and 50% respectively. Acceptance criteria per the surveillance procedure for meeting the Technical Specification was between 26% and 50%. If either alarm was reached, level was established between 38% and 40%.

Recent calculations show the minimum required level to meet the Technical Specification is 39% for accumulator A and 42% for accumulator B. The maximum required level to meet the Technical Specification is 60% for accumulator A and 62% for accumulator B. A new normal operating range has been established between 46% and 48% accumulator level.

Operator aids for accumulator level were not correct based on 1978 set point determination. They were also not updated when the accumulator level calibration was reevaluated in 1991 for not being properly pressure compensated or when a volumetric test was performed in 1992.

With the new calculated safety injection accumulator levels, there would have been numerous times in the past where accumulator level would have been below the required Technical Specification volume limit of 1225 cubic feet when the accumulators were required to be operable. In the surveillance procedure for "Shift Instrument Channel Checks-Operating," the acceptance criteria for accumulator low level were "no alarm annunciated" and "level greater than or equal to 26%." Additionally, the operator aids showed 1225 cubic feet corresponding to an indicated level of 25% for accumulator A and 22% for accumulator B. This would have been below the newly calculated minimum required levels.

Event Analysis:

This 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."

The SI accumulators actuate during the following transients and accidents: LOCA, main steamline break with offsite power available, main steamline break without offsite power, and feedwater malfunction at hot zero power. At a minimum level corresponding to the existing low level alarm, the volumetric shortfall below Technical Specification requirements would have been 27.2 cu. ft (2.2% of 1225 cu. ft.). Evaluation of the Kewaunee safety analyses has concluded that the accumulators would continue to satisfy the safety analysis acceptance criteria at this minimum level. Therefore, there was no safety significance associated with this event.

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

There is no safety system functional failure associated with this event since the condition would not have prevented fulfillment of the safety function of the system.

Cause:

The causes of this event were:

1. A 1978 set point methodology not taking into account test equipment and instrument loop accuracy tolerances.
2. Failure to update the operator aids and level alarm setpoints after a similar issue was identified in 1991 (calibration of the accumulator level instruments inaccurate due to not being properly pressure compensated - LER 91-009).

Corrective Actions:

1. An analysis was performed to determine conservative limits (in percent) to maintain the level between the Technical Specification required volumes. Proper accumulator levels were established.
2. Interim actions were established to monitor accumulator levels hourly until the level alarm setpoints are revised.
3. The station setpoint program was verified to require addressing all potential setpoint error contributors.
4. Technical Specifications will be reviewed to identify any setpoints with potential translation errors between the requirement and the indication. The calculations for these set points will be re-verified.
5. Controls for the use of operator aids are being enhanced. Existing operator aids will be reviewed and dispositioned into the correct process (operator aid, procedure, or drawing).

Similar Events:

LER 91-009-00, Error in Safety Injection accumulator level indication caused by not compensating for effects of nitrogen density during calibration.