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AUG 23 2012

ATTN: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, DC 20555-0001

Serial No. 12-567
LIC/GOR/R0
Docket No.: 50-305
License No.: DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
LICENSEE EVENT REPORT 2012-005-00


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

Report No. 50-305/2012-005-00

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

If you have any further questions, please contact Mr. Jack Gadzala at (920) 388-8604.

Very truly yours,



A. J. Jordan
Site Vice President, Kewaunee Power Station

Attachment(s)

Commitments made by this letter: NONE

JEZZ
NR

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

Mr. K. D. Feintuch
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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: 80 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Service (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects.resource@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0104), 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.

1. FACILITY NAME
Kewaunee Power Station

2. DOCKET NUMBER
05000305

3. PAGE
1 OF 4

4. TITLE
Both Safety Injection Trains Inoperable due to Venting

5. EVENT DATE			6. LER NUMBER			7. REPORT DATE			8. OTHER FACILITIES INVOLVED	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
06	27	2012	2012	-- 005 --	00	08	23	2012	FACILITY NAME	05000
									FACILITY NAME	05000

9. OPERATING MODE MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)											
	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input checked="" type="checkbox"/> 50.73(a)(2)(vii)								
10. POWER LEVEL 100%	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)								
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input checked="" type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)								
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)								
	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)								
	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)								
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)								
	<input type="checkbox"/> 20.2203(a)(2)(v)	<input type="checkbox"/> 50.73(a)(2)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER								
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 50.73(a)(2)(i)(B)	<input checked="" type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A								

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME
Kimberly A. Patek

TELEPHONE NUMBER (include Area Code)
(920) 388-8319

13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT

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

14. SUPPLEMENTAL REPORT EXPECTED

YES (If yes, complete 15. EXPECTED SUBMISSION DATE) NO

15. EXPECTED SUBMISSION DATE

MONTH DAY YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On June 27, 2012, with the Kewaunee Power Station (KPS) operating at 100% power, Safety Injection (SI) Train A and SI Train B were declared inoperable due to venting of the common pump suction line and of the bypass line to remove a void discovered the same day. Within 14 minutes the common SI Train A and SI Train B suction line and bypass line were vented, the void size was reduced to within acceptable limits, and the trains were returned to an Operable status.

The effects of an open vent line on this piping are not analyzed, potentially rendering both trains of SI inoperable; placing KPS in an unanalyzed condition.

This condition is being reported pursuant to 10 CFR 50.73(a)(2)(ii)(B), as any event or condition that resulted in the nuclear power plant being in an unanalyzed condition that significantly degraded plant safety, 10 CFR 50.73(a)(2)(v), as any condition or event that could have prevented fulfillment of a safety function, and 10 CFR 50.73(a)(2)(vii), as any event or condition where a single cause or condition caused at least one independent train or channel to become inoperable in multiple systems or two independent trains or channels to become inoperable in a single system.

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NARRATIVE

Event Description:

On June 27, 2012, at 0900, with the Kewaunee Power Station (KPS) in MODE 1, operating at 100% power, with no contributing structures, systems, or components inoperable, a gas void was identified in the Safety Injection (SI) [BQ] 12-inch diameter Common Suction Piping and in the 2-inch diameter SI Bypass Piping. The void was discovered during the routine quarterly monitoring for gas voids. The SI Bypass Piping was found to be completely voided from valve SI-31 [V] to the connection to the 12-inch SI Common Suction Piping near valve SI-4B. The SI Common Suction Piping at valves SI-4A and SI-4B was found to be partially voided. An Operability Determination was performed which concluded that the SI System was Operable but Nonconforming.

To correct the Nonconforming condition KPS staff vented the gas voids. While venting of the void in the common suction line and bypass line for the safety injection pumps [P] from 1446 to 1500 June 27, 2012, both Trains of Safety Injection were declared inoperable, as documented in Kewaunee's corrective action program (CAP) condition report (CR) 480163. This condition was determined a NRC reportable event under 10 CFR 50.72(b)(3)(ii)(B) as an unanalyzed condition because current KPS analyses do not support the vent line on the SI pumps' common suction or bypass line being open. An event notification report was made to the NRC on June 27, 2012, reference Event Notification number 48051.

Post-venting ultrasonic test (UT) examination of the SI piping determined the SI Common Suction Piping to be full of water, while a void remained in the SI Bypass Piping which was determined to be less than 2 cubic inches (less than 0.001 cubic feet), well below 0.01 cubic feet (procedural definition of sufficiently full).

The Emergency Core Cooling System (ECCS) for KPS consists of safety injection and residual heat removal (RHR)[BP] pumps, accumulators [ACC], containment sump, RHR heat exchangers [HX], and the refueling water storage tank (RWST) [TK], along with the associated piping, valves, instrumentation, and other related equipment.

In Modes 1, 2, and 3, plant Technical Specification (TS) 3.5.2 "ECCS - Operating," requires two independent ECCS trains be operable, with each ECCS train consisting of an SI subsystem and an RHR subsystem. Each train includes the piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the RWST upon an SI signal and manually transferring suction to the containment sump. During an event requiring ECCS actuation, a flow path is required to provide an abundant supply of water from the RWST to the reactor coolant system (RCS) [AB] via the ECCS pumps and their respective supply headers to each of the two cold leg injection nozzles (SI pumps) and RCS vessel injection nozzles (RHR pumps). In the long term, this flow path may be switched to take its supply from the containment sump and to supply its flow to the RCS cold legs or vessel.

In Mode 4, plant TS 3.5.3 "ECCS Subsystems — Shutdown," requires one ECCS train be operable. In MODE 4, an ECCS train consists of a safety injection subsystem and an RHR subsystem. Each train includes the piping, instruments, and controls to ensure an OPERABLE flow path capable of taking suction from the RWST and transferring suction to the containment sump.

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Because the effects of an open vent line on the common SI Pump suction or bypass line are not analyzed, potentially rendering both trains of SI inoperable, this condition is being reported pursuant to 10 CFR 50.73(a)(2)(ii)(B), as any event or condition that resulted in the nuclear power plant being in an unanalyzed condition that significantly degraded plant safety, 10 CFR 50.73(a)(2)(v), as any condition or event that could have prevented fulfillment of a safety function, and 10 CFR 50.73(a)(2)(vii), as any event or condition where a single cause or condition caused at least one independent train or channel to become inoperable in multiple systems or two independent trains or channels to become inoperable in a single system.

Event and Safety Consequence Analysis:

Current analyses do not support operability of the Safety Injection pumps with either of the vent valves on the common pump RWST suction line open or the vent valve on the RWST SI pump suction isolation valves bypass line open. The SI pumps are required during a design bases accident to makeup a loss of RCS inventory where the inventory loss is greater than the capacity of the charging pumps and not enough to depressurize the RCS to less than the shutoff head of the RHR pumps.

Prior to the time the vent valves were open when the nonconforming void existed in the piping, there was no increased risk because the pumps were capable of performing their intended function. While the vent valves were open, a dedicated operator was standing by with written instructions and in constant communication from the control room, ready to close the valve if a Safety Injection signal had occurred. The pumps were in auto and all other valves were aligned in their normal alignment. Therefore, there was minimal increased risk due to this event.

Based on the above, there was minimal safety consequence associated with this condition.

Cause:

The cause of this event was determined to be the planned and controlled opening of vent valves to vent a void in the SI pumps' common suction piping. The most probable cause of the void in the common SI pump suction piping and bypass piping was a pressure drop across the throttled butterfly valve RHR-101 [RHR HX Bypass Flow Control Valve] during reactor cavity drain down, which can cause dissolved gasses to come out of solution.

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Corrective Actions:

As an immediate corrective action, the sections of piping, where the void was located, were vented to remove the gas void and return the SI System to a conforming and fully operable condition.

Additional planned corrective actions include:

1. Analyzing the affects of performing venting activities while at-power for this section of piping to determine a process by which acceptable accident analysis results can be obtained.
2. Develop a scheduling link to ensure the UT examination of this location is performed after completing the Reactor Cavity drain down and before entering a Mode where the Safety Injection System is required to be Operable.

Similar Events:

A review of Licensee Event Reports covering the previous three years did not identify any similar events.