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MAY 23 2011

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

Serial No. 11-302  
LIC/NW/R0  
Docket No.: 50-305  
License No.: DPR-43

**DOMINION ENERGY KEWAUNEE, INC.**  
**KEWAUNEE POWER STATION**  
**LICENSEE EVENT REPORT 2011-003-00**

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

Report No. 50-305/2011-003-00

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. Richard Repshas at (920) 388-8217.

Very truly yours,

A handwritten signature in cursive script that reads "Stephen E. Scace".

Stephen E. Scace

Site Vice President, Kewaunee Power Station

Attachment(s)

Commitments made by this letter: NONE

IE22  
MRK

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

Mr. K. D. Feintuch  
Project Manager  
U.S. Nuclear Regulatory Commission  
One White Flint North, Mail Stop O8-H4A  
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NRC Senior Resident Inspector  
Kewaunee Power Station

<b>NRC FORM 366</b> (10-2010)				<b>U.S. NUCLEAR REGULATORY COMMISSION</b>  <div style="text-align: center;"> <b>LICENSEE EVENT REPORT (LER)</b>          (See reverse for required number of digits/characters for each block)       </div>											
APPROVED BY OMB: NO. 3150-0104				EXPIRES: 10/31/2013											
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 <a href="mailto:infocollects.resource@nrc.gov">infocollects.resource@nrc.gov</a> , 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.															
<b>1. FACILITY NAME</b> <b>Kewaunee Power Station</b>				<b>2. DOCKET NUMBER</b> <b>05000305</b>		<b>3. PAGE</b> <b>1</b> OF <b>4</b>									
<b>4. TITLE</b> <b>Valve SI-11A, Safety Injection to Loop A Cold Leg, Breaker Found ON with Plant in MODE 3</b>															
<b>5. EVENT DATE</b>			<b>6. LER NUMBER</b>			<b>7. REPORT DATE</b>			<b>8. OTHER FACILITIES INVOLVED</b>						
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO	MONTH	DAY	YEAR	FACILITY NAME		DOCKET NUMBER				
03	24	2011	2011	-- 003 --	00	05	23	2011	FACILITY NAME		05000				
									FACILITY NAME		05000				
<b>9. OPERATING MODE</b> <b>3</b>			<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</b>												
<b>10. POWER LEVEL</b> <b>0%</b>			<table style="width: 100%; border: none;"> <tr> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> 20.2201(b)  <input type="checkbox"/> 20.2201(d)  <input type="checkbox"/> 20.2203(a)(1)  <input type="checkbox"/> 20.2203(a)(2)(i)  <input type="checkbox"/> 20.2203(a)(2)(ii)  <input type="checkbox"/> 20.2203(a)(2)(iii)  <input type="checkbox"/> 20.2203(a)(2)(iv)  <input type="checkbox"/> 20.2203(a)(2)(v)  <input type="checkbox"/> 20.2203(a)(2)(vi)         </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> 20.2203(a)(3)(i)  <input type="checkbox"/> 20.2203(a)(3)(ii)  <input type="checkbox"/> 20.2203(a)(4)  <input type="checkbox"/> 50.36(c)(1)(i)(A)  <input type="checkbox"/> 50.36(c)(1)(ii)(A)  <input type="checkbox"/> 50.36(c)(2)  <input type="checkbox"/> 50.46(a)(3)(ii)  <input type="checkbox"/> 50.73(a)(2)(i)(A)  <input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)         </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> 50.73(a)(2)(i)(C)  <input type="checkbox"/> 50.73(a)(2)(ii)(A)  <input type="checkbox"/> 50.73(a)(2)(ii)(B)  <input type="checkbox"/> 50.73(a)(2)(iii)  <input type="checkbox"/> 50.73(a)(2)(iv)(A)  <input type="checkbox"/> 50.73(a)(2)(v)(A)  <input type="checkbox"/> 50.73(a)(2)(v)(B)  <input type="checkbox"/> 50.73(a)(2)(v)(C)  <input type="checkbox"/> 50.73(a)(2)(v)(D)         </td> <td style="width: 33%; vertical-align: top;"> <input type="checkbox"/> 50.73(a)(2)(vii)  <input type="checkbox"/> 50.73(a)(2)(viii)(A)  <input type="checkbox"/> 50.73(a)(2)(viii)(B)  <input type="checkbox"/> 50.73(a)(2)(ix)(A)  <input type="checkbox"/> 50.73(a)(2)(x)  <input type="checkbox"/> 73.71(a)(4)  <input type="checkbox"/> 73.71(a)(5)  <input type="checkbox"/> OTHER         </td> </tr> </table>									<input type="checkbox"/> 20.2201(b) <input type="checkbox"/> 20.2201(d) <input type="checkbox"/> 20.2203(a)(1) <input type="checkbox"/> 20.2203(a)(2)(i) <input type="checkbox"/> 20.2203(a)(2)(ii) <input type="checkbox"/> 20.2203(a)(2)(iii) <input type="checkbox"/> 20.2203(a)(2)(iv) <input type="checkbox"/> 20.2203(a)(2)(v) <input type="checkbox"/> 20.2203(a)(2)(vi)	<input type="checkbox"/> 20.2203(a)(3)(i) <input type="checkbox"/> 20.2203(a)(3)(ii) <input type="checkbox"/> 20.2203(a)(4) <input type="checkbox"/> 50.36(c)(1)(i)(A) <input type="checkbox"/> 50.36(c)(1)(ii)(A) <input type="checkbox"/> 50.36(c)(2) <input type="checkbox"/> 50.46(a)(3)(ii) <input type="checkbox"/> 50.73(a)(2)(i)(A) <input checked="" type="checkbox"/> 50.73(a)(2)(i)(B)	<input type="checkbox"/> 50.73(a)(2)(i)(C) <input type="checkbox"/> 50.73(a)(2)(ii)(A) <input type="checkbox"/> 50.73(a)(2)(ii)(B) <input type="checkbox"/> 50.73(a)(2)(iii) <input type="checkbox"/> 50.73(a)(2)(iv)(A) <input type="checkbox"/> 50.73(a)(2)(v)(A) <input type="checkbox"/> 50.73(a)(2)(v)(B) <input type="checkbox"/> 50.73(a)(2)(v)(C) <input type="checkbox"/> 50.73(a)(2)(v)(D)	<input type="checkbox"/> 50.73(a)(2)(vii) <input type="checkbox"/> 50.73(a)(2)(viii)(A) <input type="checkbox"/> 50.73(a)(2)(viii)(B) <input type="checkbox"/> 50.73(a)(2)(ix)(A) <input type="checkbox"/> 50.73(a)(2)(x) <input type="checkbox"/> 73.71(a)(4) <input type="checkbox"/> 73.71(a)(5) <input type="checkbox"/> OTHER
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Specify in Abstract below or in NRC Form 366A															
<b>12. LICENSEE CONTACT FOR THIS LER</b>															
FACILITY NAME <b>Robert Irion</b>								TELEPHONE NUMBER (include Area Code) <b>(920) 388-8857</b>							
<b>13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT</b>															
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX					
<b>14. SUPPLEMENTAL REPORT EXPECTED</b> <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO						<b>15. EXPECTED SUBMISSION DATE</b>									
						MONTH		DAY		YEAR					
<b>ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)</b> <p>At 1125 CST on March 24, 2011 with the plant shutdown and in Mode 3, it was identified that the electrical breaker for motor operated valve SI-11A, Safety Injection to Loop A Cold Leg, was in the ON position with the valve open, instead of the required breaker position of LOCKED OFF for the plant conditions as required by Technical Specifications. The valve itself was properly in the open position and was thereby providing the required safety injection flow path.</p> <p>The breaker being mispositioned was as a result of performance of procedure SP-33-297A, Safety Injection to Loop A Cold Leg Check Valve Leakage Measurement. As written, the procedure did not provide direction for performing valve breaker manipulations, nor did it include steps to verify valve SI-11A was in the open position upon completion of the check valve leakage measurement activities.</p> <p>When the condition was identified, SI-11A was verified open and the breaker was placed in the OFF position and LOCKED.</p> <p>This event is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B) for any operation or condition prohibited by the plant's Technical Specifications.</p>															

LICENSEE EVENT REPORT (LER)  
CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REV NO.	2 OF 4
		2011	-- 003	- 00	

## NARRATIVE

## Event Description

At 1125 on March 24, 2011, it was identified that the electrical breaker [BKR] for motor operated valve SI-11A [20], Safety Injection to Loop A Cold Leg, was in the ON position with the valve open instead of the required valve open with the breaker in the LOCKED OFF position as needed to meet Technical Specification (TS) 3.5.2, Emergency Core Cooling Systems (ECCS) – Operating, MODES 1, 2, and 3 Surveillance Requirements.

The Plant was in the process of exiting a refueling outage. While in MODE 4, procedure SP-33-297A, Safety Injection to Loop A Cold Leg Check Valve Leakage Measurement, and procedure SP-33-297B, Safety Injection to Loop B Cold Leg Check Valve Leakage Measurement, were being performed. The procedures positioned various motor operated valves closed that are normally open with their breakers LOCKED OFF per an approved checklist to provide the flow path from the emergency core cooling system (ECCS) pumps to the reactor coolant system (RCS) [AB].

The check valve testing per the procedures was performed the evening of March 23<sup>rd</sup> and into the morning of March 24<sup>th</sup>. After this and other testing was completed, the plant transitioned to MODE 3 at 0258 on March 24<sup>th</sup>.

The procedures, as written, did not provide direction for realignment of certain valves or to verify proper system alignment for the operating MODE. This was the case specifically in SP-33-297A for valve SI-11A, Safety Injection to Loop A Cold Leg, in which the valve was returned to the open position but the breaker was left ON. In the case during performance of SP-33-297B, valve SI-11B [20], Safety Injection to Loop B Cold Leg, was returned to the open position and its breaker was positioned to LOCKED OFF.

When it was identified that the breaker for SI-11A was in the ON position in MODE 3, it was also recognized that the requirements of LCO 3.0.4, for entering a Mode of Applicability when an LCO is not met, were not completed prior to entering MODE 3.

LCO 3.0.4 states:

When an LCO is not met, entry into a MODE or other specified condition in the Applicability shall only be made:

- When the associated ACTIONS to be entered permit continued operation in the MODE or other specified condition in the Applicability for an unlimited period of time;
- After performance of a risk assessment addressing inoperable systems and components, consideration of the results, determination of the acceptability of entering the MODE or other specified condition in the Applicability, and establishment of risk management actions, if appropriate; exceptions to this Specification are stated in the individual specifications; or
- When an allowance is stated in the individual value, parameter, or other specification.

This Specification shall not prevent entry into MODES or other specified conditions in the Applicability that are required to comply with ACTIONS or that are part of a shutdown of the unit.

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REV NO.	3 OF 4
		2011	- 003	- 00	

Therefore, since the MODES 1, 2, and 3 Surveillance Requirement SR 3.5.2.1 was not met prior to leaving Mode 4 and entering Mode 3, Technical Specifications were violated.

Thus, this event is being reported pursuant to 10 CFR 50.73(a)(2)(i)(B) for "Any operation or condition prohibited by the plant's Technical Specifications."

**Event and Safety Consequence Analysis**

As a part of TS 3.5.2, Emergency Core Cooling Systems (ECCS) – Operating, Surveillance Requirement, SR 3.5.2.1, is required for MODES 1, 2, and 3.

SR 3.5.2.1 is performed to verify the following valves are in the listed position with motive power to the valve operator removed: SI-9A [20], Safety Injection to RCS Cold Legs; SI-11A, Safety Injection to Loop A Cold Leg; SI-11B, Safety Injection to Loop B Cold Leg; and SI-4A [20] or SI-4B [20], Refueling Water Storage Tank to Safety Injection Pumps. The Surveillance is applicable in Modes 1, 2, and 3 and the Frequency for the Surveillance is 12 hours.

The purpose of SR 3.5.2.1 is to provide for verification of proper valve position to ensure that the flow path from the emergency core cooling system (ECCS) pumps to the RCS is maintained. Misalignment of these valves could render both ECCS trains inoperable. Securing these valves in position with their respective power breaker locked out ensures that they cannot change position as a result of an active failure or be inadvertently misaligned. These valves are of the type described in IE Information Notice 87-01, RHR VALVE MISALIGNMENT CAUSES DEGRADATION OF ECCS IN PWRS, that can disable the function of both ECCS trains and invalidate the accident analyses.

Mode 3 was entered from Mode 4 at 0258 on March 24, 2011. The breaker for SI-11A was turned Off and LOCKED at 1130 on March 24, 2011. The breaker was in the ON position instead of the required position of LOCKED OFF for a period of 8 hours and 32 minutes.

Additionally, a prompt extent of condition evaluation was performed with no other Safety Injection [BQ] valves and their breakers being identified in the wrong position.

Since SI-11A was in its appropriate open position to provide the ECCS flowpath and the breaker for the valve was in the ON position for only a short time, there was a very low safety significance associated with this event.

**Cause**

This event was due to inadequate guidance in procedure SP-33-297A, Safety Injection to Loop A Cold Leg Check Valve Leakage Measurement. Procedure SP-33-297A did not provide direction for performing valve breaker manipulations and did not include steps to verify valve SI-11A was in the open position (nor did it specify the final position of other valve breakers and valves).

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

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
Kewaunee Power Station	05000305	YEAR	SEQUENTIAL NUMBER	REV NO.	4 OF 4
		2011	- 003	- 00	

**Corrective Actions**

The following immediate corrective actions were taken:

- SI-11A was verified open and its breaker was turned OFF and LOCKED.
- A prompt extent of condition evaluation for Safety Injection valves and their associated breaker positions was performed with no incorrect positioning identified.

Additional corrective actions were taken to:

- Place the SP-33-297A and SP-33-297B procedures on administrative hold and initiate a procedure change request to revise the procedures to include specific breaker positioning and valve alignment during the testing and upon completion of the testing.

**Similar Events**

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