

Dominion Energy Kewaunee, Inc.
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MAR 30 2009

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

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Docket No.: 50-305
License No.: DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
LICENSEE EVENT REPORT 2009-002-00

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

Report No. 50-305/2009-002-00

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,

Stephen E. Scace
Site Vice President, Kewaunee Power Station

Attachment(s)

Commitments made by this letter: NONE

JEH
NR

cc: Regional Administrator, Region III
U.S. Nuclear Regulatory Commission
2443 Warrenville Road
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Mr. P. S. Tam
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NRC Senior Resident Inspector
Kewaunee Power Station

NRC FORM 366 (9-2007)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB: NO. 3150-0104		EXPIRES: 08/31/2010			
<h2 style="margin:0;">LICENSEE EVENT REPORT (LER)</h2> <p style="margin:0;">(See reverse for required number of digits/characters for each block)</p>					<p>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 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, (3150-0104), 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.</p>					
1. FACILITY NAME Kewaunee Power Station				2. DOCKET NUMBER 05000305		3. PAGE 1 OF 3				
4. TITLE Steam Exclusion Door Blocked Open During Maintenance Activities										
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
01	28	2009	2009	- 002	- 00	03	30	2009	FACILITY NAME	
9. OPERATING MODE N		11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)								
10. POWER LEVEL 100		<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> 50.73(a)(2)(vii)					
		<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 checked="" 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 checked="" 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)	<input type="checkbox"/> OTHER	Specify in Abstract below or in NRC Form 366A				
12. LICENSEE CONTACT FOR THIS LER										
NAME Ethan Brand						TELEPHONE NUMBER (include Area Code) 920-388-8527				
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT										
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	
14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO						15. EXPECTED SUBMISSION DATE				
						MONTH	DAY	YEAR		
<p>ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)</p> <p>On January 28, 2009 with the station at 100 percent power, mechanical maintenance notified the control room that two doors would be opened per procedure to perform dry testing of carbon dioxide hose reel stations. Upon checking at 08:34 CST, Operations found Door 3 open with a person stationed at the door and Door 5 open with the installed door chock down and a person stationed at the door. Per the barrier control procedure, doors shall only be held open by an individual without the use of mechanical aids (e.g. chocks or cords). Door 5 was in this condition approximately 15 minutes. A postulated high energy line break in the turbine building would communicate with the carbon dioxide tank room where Door 5 is located to provide a steam exclusion boundary with both trains of 480 volt engineered safeguards feature busses. This would result in both trains of engineered safeguards feature equipment being inoperable.</p> <p>This condition is being reported pursuant to 10 CFR 50.73(a)(2)(ii)(B), as a condition that resulted in the nuclear power plant being in an unanalyzed condition. Additionally, since both trains of emergency safeguards equipment were inoperable, this condition is being reported under 10 CFR 50.73(a)(2)(v), for any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to: (A) Shut down the reactor and maintain it in a safe shutdown condition; (B) Remove residual heat; (C) Control the release of radioactive material; or (D) Mitigate the consequences of an accident.</p>										

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Event Description:

On January 28, 2009 with the Kewaunee Power Station (KPS) at 100 percent power, mechanical maintenance notified the control room that two doors [DR] (Door 3 and Door 5) would be opened per procedure MA-KW-MPM-FP-030C, "Dry Test of CO₂ System for Hose Reel Stations," Step 5.2.4.a to vent the cardox room (carbon dioxide (CO₂) tank [TK] room) during bleeding of the CO₂ supply header. This is allowed per procedure OP-KW-AOP-GEN-005, "Barrier Control," step 3.2.20.a, in that doors shall only be held open by an individual without the use of mechanical aids (e.g. chocks or cords). The shift technical advisor (STA) entered the area at 08:34 CST. The STA noticed that the door chock (installed on the door) for Door 5 was in the down position with a mechanic stationed at the door. With the door chock down, Door 5 was inoperable as a steam exclusion boundary between the CO₂ storage tank room and safety related 480 volt switchgear [SWGR] rooms. This would render both trains of 480 volt engineered safeguards feature (ESF) busses [BU] inoperable. A high energy line break in the turbine building with Door 5 open would allow steam into the emergency safeguards bus area.

The STA instructed the mechanic to lift the door chock so the door would be able to close on its own. Per the mechanic, the door chock was down for less than 15 minutes. The STA then walked around to Door 3 via the emergency diesel generator [DG] rooms and noticed that a person was also stationed at that door but it was not mechanically blocked open.

KPS Technical Requirements Manual (TRM) ALCO 3.0.9, "Steam Exclusion System," specified that "all required steam exclusion boundaries such as walls, hatches, etc., shall be OPERABLE." Required action A.1 directs that, for an inoperable steam exclusion boundary, "declare all equipment supported by the inoperable steam exclusion barrier inoperable."

In accordance with TRM 3.0.9, all equipment supported by that steam exclusion boundary door was inoperable. Both trains of 480 volt ESF power supplies were inoperable. Technical Specification 3.0.c, "Standard Shutdown Sequence," was entered at the time of discovery and exited when the door chock was removed from the door.

An eight hour Reactor Plant Event Notification (EN #44812) was made at 12:24 CST.

This condition is being reported pursuant to 10 CFR 50.73(a)(2)(ii)(B), as a condition that resulted in the nuclear power plant being in an unanalyzed condition. Additionally, since both trains of emergency safeguards equipment were inoperable, this condition is being reported under 10 CFR 50.73(a)(2)(v), for any event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to: (A) Shut down the reactor and maintain it in a safe shutdown condition; (B) Remove residual heat; (C) Control the release of radioactive material; or (D) Mitigate the consequences of an accident.

Event and Safety Consequence Analysis:

The steam exclusion system aids in the mitigation of a high-energy line break outside of containment. The primary functions of steam exclusion are to provide suitable environmental conditions for needed equipment operation, and a habitable environment for personnel in areas outside of containment which may require access should a high energy line break occur.

If a steam exclusion boundary is inoperable, a barrier that may be credited with protecting a supported component or system is no longer capable of providing that protection. This condition requires that all

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equipment supported by the inoperable steam exclusion barrier be immediately declared inoperable unless an evaluation has been performed to determine that required equipment supported by the inoperable steam exclusion barrier is OPERABLE.

By design, steam exclusion doors are allowed to be opened for normal ingress and egress. NRC TIA 98-004 stated: "if a barrier, (including a door acting as a barrier) is removed, opened for more than routine ingress and egress, or otherwise made incapable of performing its design function, the equipment protected by the barrier should be declared inoperable..." Routine ingress and egress has been defined by the site as equipment necessary to support the normal maintenance, surveillance and operation of the plant, subject to the following conditions: Doors shall not remain open in excess of one hour; and, doors shall only be held open by an individual, without the use of mechanical aids (e.g. chocks or cords).

Since Door 5 was held open with a mechanical aid, the door was open for other than routine ingress and egress. Therefore, both trains of ESF equipment were inoperable.

The door was blocked open for less than 15 minutes. The probability of a steam line break during that short period of time is very low. Therefore the event was of very low risk significance.

Cause:

Maintenance procedure MA-KW-MPM-FP-030C, "Dry Test of CO₂ System for Hose Reel Stations," does not restrict or provide detail as to how the door is to be held open, allowing interpretation.

Corrective Actions:

A walk down by operations of all steam exclusion doors found no other doors with a door chock installed. The chock on Door 5 was removed.

Seven maintenance procedures and two operations procedures were identified for changes to align with the requirements as stated in OP-KW-AOP-GEN-005, "Barrier Control," step 3.2.20.a, in that doors shall only be held open by an individual without the use of mechanical aids (e.g. chocks or cords).

Similar Events:

LER 2008-002-00, Blocked Open Steam Exclusion Door Results in Postulated Inoperability of Safety Systems

LER 2008-003-00, Door Bottom Seal Failure Results in Inoperability of Control Room Ventilation System