

Dominion Energy Kewaunee, Inc.
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DEC 18 2008

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

Serial No. 08-0751
LIC/JG/RO
Docket No.: 50-305
License No.: DPR-43

DOMINION ENERGY KEWAUNEE, INC.
KEWAUNEE POWER STATION
LICENSEE EVENT REPORT 2008-002-00

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

Report No. 50-305/2008-002-00

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. Jack Gadzala at (920) 388-8604.

Very truly yours,

Stephen E. Scace
Site Vice President, Kewaunee Power Station

Attachment

Commitments made by this letter: NONE

JE22
NRR

cc: Regional Administrator, Region III
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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 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.

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4. TITLE
Blocked Open Steam Exclusion Door Results in Postulated Inoperability of Safety Systems

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
10	30	2008	2008	-- 002	-- 00	12	18	2008	FACILITY NAME	

9. OPERATING MODE N	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 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 type="checkbox"/> 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A						

12. LICENSEE CONTACT FOR THIS LER

NAME Dale A. Patterson	TELEPHONE NUMBER (include Area Code) 920-388-8759
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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 <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE MONTH: DAY: YEAR:
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On October 30, 2008, a Dominion Energy Kewaunee (DEK) technician was routinely transiting through a steam exclusion door (Door 140), when the door's weather stripping partially dislodged and became wedged in the staircase grating. This prevented the door from immediately shutting until the technician physically lifted the stripping out of the way to shut the door. The door was in this condition for less than one minute. Upon shutting Door 140, even with the weather stripping degraded, the steam exclusion function for the zone being supported was fully met.

Kewaunee Power Station (KPS) Technical Requirements Manual (TRM) 3.0.9, "Steam Exclusion System", directs that all equipment supported by a nonfunctional steam exclusion barrier be declared inoperable immediately. Door 140 supports multiple trains of emergency core cooling systems (ECCS) and other equipment required by Technical Specifications (TS). With Door 140 blocked open (albeit briefly), TRM 3.0.9 required all equipment supported by that door to be declared inoperable.

Since multiple out of service trains is technically an unanalyzed condition, this condition is being conservatively 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 core cooling were postulated to be inoperable, this condition would also meet the reporting criteria of 10 CFR 50.73(a)(2)(v)(B), any event or condition that could have prevented the fulfillment of a safety function.

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NARRATIVE

Event Description:

On October 30, 2008, at 0930 CDT, a DEK technician was routinely transiting from the spent fuel pool heat exchanger room through a steam exclusion door (Door 140) [DR] whose weather stripping [SEAL] had become degraded. The weather stripping, which is normally attached to the door by three screws, had two screws missing. When the door was opened, the weather stripping rotated on the remaining screw and became lodged in the staircase grating. This prevented the door from immediately shutting until the technician physically lifted the stripping out of the way to shut the door. The technician swung the weather stripping back up and held it to shut the door. The door was in this condition for less than one minute.

After the door was shut, the weather stripping was taped up as a temporary measure until a permanent correction was made. Access was restricted through the door until repairs were completed. With the door shut, the gap exposed by the degraded seal was sufficiently small such that the steam exclusion function for the zone being supported was fully met. Permanent repairs to the weather stripping were completed at 1116 on October 30, 2008. The plant remained at full power throughout this event.

Door 140 is a steam exclusion barrier that supports multiple trains of emergency core cooling and other required systems. Normal ingress and egress is allowed; however, hazard barrier doors are not allowed to be blocked open. Although the technician was in the process of shutting the door, the dislodged weather stripping technically blocked the door open until the technician lifted it up out of the way. Per the guidance of NRC RIS 2001-09, "Control of Hazard Barriers", a component "...that is credited with mitigating a HELB (high energy line break) event would be rendered inoperable if a barrier that is credited with protecting the (component) from the effects of the postulated HELB event is removed". Consequently, during the brief intervening period from when the weather stripping fell loose until the technician lifted it and shut the door, multiple trains of ECCS and other systems that are supported by that door's barrier function were postulated to be inoperable.

KPS TRM ALCO 3.0.9, "Steam Exclusion System", specifies 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 door was inoperable. The supported zone includes both trains of safety injection (SI) [BQ], residual heat removal (RHR) [BP], internal containment spray (ICS) [BE], and component cooling water (CCW) [CC].

TS 3.3.b.1.A states:

TWO SI/RHR trains are OPERABLE.

TS 3.3.b.2, which allows conditions of inoperability to exist during the time intervals specified, states:

During power operation or recovery from an inadvertent trip, ONE SI/RHR train may be inoperable for a period of 72 hours.

During the time that this door was blocked open, the limiting condition for operation (LCO) allowed by TS 3.3.b.2 was not met because one SI/RHR train did not remain OPERABLE due to the door's support function not being met. The analogous TS requirements for the other supported systems were also similarly not met. When an LCO is not met, TS 3.0.c, "Standard Shutdown Sequence", directs that action shall be initiated within

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one hour to place the unit in HOT STANDBY within the next 6 hours. The door was in this condition for less than one minute.

Since multiple out of service trains is technically an unanalyzed condition, this condition is being conservatively 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 core cooling were postulated to be inoperable, this condition would also meet the reporting criteria of 10 CFR 50.73 (a)(2)(v)(B), any event or condition that could have prevented the fulfillment of a safety function. This condition was initially reported to the NRC via the Emergency Notification System (ENS) on October 30, 2008 (EN 44616).

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 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 safety function, the equipment protected by the barrier should be declared inoperable...". Routine Ingress and Egress has been defined by the site as the opening of steam exclusion doors for the purpose of transportation or movement of personnel and/or 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 1 hour; and, doors shall only be held open by an individual, without the use of mechanical aids (e.g. chocks or cords).

Since the Door 140 weather stripping temporarily acted as a mechanical aid in holding the door open, the door was conservatively judged to have been open for other than routine ingress and egress during that period. Door 140 is a steam exclusion barrier that supports multiple trains of emergency core cooling and other required safety systems, including both trains of SI, RHR, ICS, and CCW. Because all these systems were declared inoperable during the brief period that the door was blocked open, this condition technically constitutes a safety system functional failure.

However, since the door was blocked open less than one minute and was under control of the technician, there was minimal safety significance associated with this event. The safety significance was judged to be comparable to that of opening the door for normal ingress and egress.

Cause:

The cause of this condition was identified as missing retainer screws from the Door 140 weather stripping. The probable cause of the missing screws was loosening of the screws over time through normal door use.

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Corrective Actions:

As immediate corrective action, the steam exclusion barrier provided by Door 140 was restored to functional status by shutting the door and temporarily affixing its weather stripping in place. Permanent repairs to the weather stripping, which consisted of replacing the missing screws in accordance with plant work control processes, were completed at 1116 on October 30, 2008.

As part of the extent of condition review, DEK staff inspected a comprehensive list of doors. The inspection did not reveal any additional concerns.

DEK staff performed a review of the topical design basis document for high energy line break in order to assess the single point vulnerability presented by doors in the turbine and auxiliary buildings. A corrective action was initiated to evaluate certain doors credited as steam exclusion boundaries.

A corrective action was initiated to perform a Maintenance Rule Evaluation of this condition.

A corrective action was initiated to evaluate Procedure PMP-08-19, "Inspection of Plant and Fire Doors", for adequacy and frequency of performance of door inspections.

Similar Events:

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