



April 25, 2011

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

Point Beach Nuclear Plant, Units 1 and 2  
Dockets 50-266 and 50-301  
License Nos. DPR-24 and DPR-27

Licensee Event Report 266/2010-005-01  
Improper Administrative Controls for Breach of HELB Barriers

Enclosed is Licensee Event Report (LER) 266/2010-005-01 for Point Beach Nuclear Plant (PBNP), Units 1 and 2. This LER supplements the original LER 266/2010-005-00, that was submitted February 18, 2011.

This submittal contains no new or revised regulatory commitments.

Very truly yours,

NextEra Energy Point Beach, LLC

A handwritten signature in black ink, appearing to read 'Larry Meyer', is written over a large, light-colored scribble.

Larry Meyer  
Site Vice President

Enclosure

cc: Administrator, Region III, USNRC  
Project Manager, Point Beach Nuclear Plant, USNRC  
Resident Inspector, Point Beach Nuclear Plant, USNRC  
PSCW

**LICENSEE EVENT REPORT (LER)**

Estimated burden per response to comply with this mandatory collection request: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (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**  
Point Beach Nuclear Plant

**2. DOCKET NUMBER**  
05000266

**3. PAGE**  
1 of 3

**4. TITLE**  
Improper Administrative Controls for HELB Barriers

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
08	27	2010	2010	005	01	04	25	2011	PBNP Unit 2	05000301

**9. OPERATING MODE**  
Unit 1 - MODE 1  
Unit 2 - MODE 1

**10. POWER LEVEL**  
Unit 1 - 100%  
Unit 2 - 100%

**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)
<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 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**

NAME: Fritzie Flentje  
TELEPHONE NUMBER (Include Area Code): 920/755-7656

**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**  
 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)**

During the spring of 2010, NextEra identified several past instances where high energy line break (HELB) barriers were not being properly controlled during maintenance and modification activities. Consequently, a HELB in certain areas coincident with the barriers being open could have adversely affected the equipment within the adjacent room.

A three-year review was conducted to determine the extent of condition of the potential barrier breaches. The results revealed additional instances where HELB barriers had been improperly controlled and the barrier had been rendered inoperable. A causal evaluation determined that the administrative procedure governing HELB barriers was not consistent with industry standards and did not contain applicable regulatory guidance. An analysis for safety significance is in progress.

This report supplements the 60-day licensee event report submitted on February 18, 2011, in accordance with the requirements of 10 CFR 50.73(a)(2)(ii)(B), as an unanalyzed condition and 10 CFR 50.73(a)(2)(v)(A) and (D) as a condition that could have prevented fulfillment of the safety function of systems that are needed to shutdown the reactor and maintain it in a safe shutdown condition or mitigate the consequences of an accident. The event constitutes a safety system functional failure.

**LICENSEE EVENT REPORT (LER)  
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**NARRATIVE**

**Event Description:**

During the spring of 2010 NextEra identified that there were several instances where barriers were not being properly controlled and had been breached during maintenance and modification activities. Specifically, NextEra identified that high energy line break (HELB) barriers had been improperly controlled while the barriers were open for other than normal ingress and egress. If a HELB had occurred while the barriers had been breached, the condition could have adversely affected safety-related equipment contained in the adjacent room.

The station's administrative program in place at the time of these past events was determined to be inconsistent with industry standards and applicable regulatory guidance. Furthermore, the program did not include an analysis of postulated HELB effects on safety-related equipment, during barrier breaches.

This 60-day licensee event report is being submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(ii)(B), as an unanalyzed condition, and 10 CFR 50.73(a)(2)(v)(A) and (D) as a condition that could have prevented fulfillment of the safety function of systems that are needed to shutdown the reactor and maintain it in a safe shutdown condition or mitigate the consequences of an accident. The event constitutes a safety system functional failure.

**Event Analysis:**

A three-year historical review of the station log was conducted to identify HELB breach occurrences. NextEra determined that the north control room door was prevented from closing for lock replacement approximately every six (6) weeks over the duration of the review. The data contained in the station log was further verified by security logs that monitored the status of this door during the potential breach. The north control room door is a HELB barrier. The door would mitigate the consequences of a potential HELB event in the turbine building by maintaining the normal control room environment.

There were other additional identified instances of HELB barriers being breached during the review period. Where possible, the station log information was further verified by security logs that monitored the status of the barrier during the potential breach.

Based upon work practices that implemented administrative procedure guidance at the time of the events, NextEra conservatively assumed that the above described barriers were prevented from closing by mechanical means. Therefore, a harsh environment could have existed in the areas protected by the barrier had a HELB event occurred during the period of time the barrier was prevented from closing. The equipment potentially affected was dependent upon the specific barrier that was breached for the given area.

Preventing HELB barriers from closing created a condition where the barriers were degraded relative to protecting both the safety-related and environmentally-qualified equipment contained in the area. A HELB barrier may be opened for routine ingress and egress with no effect on the HELB barrier's ability to perform its function. Since the barriers were prevented from closing, the barriers were not open for routine ingress and egress. An analysis had not been performed to determine whether the equipment on the other side of the breached barrier would become subject to a harsh environment had a HELB occurred.

A follow-up adverse trend evaluation was performed of documented instances of barrier breaches. The purpose of the evaluation was to determine if other programs (such as fire barriers) had sufficient administrative controls in place to prevent an improper breach of the required barrier. The results of the evaluation determined that corrective actions were appropriate to resolve the identified extent of condition.

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**NARRATIVE**

**Safety Significance:**

A historical review concluded when the barriers were prevented from closing there was no actual loss of a safety-related system, structure or component (SSC). Overall, HELB events are low-frequency occurrences. These events would have to cause systems required to mitigate a postulated HELB to be rendered non-functional in order to result in substantive safety consequences. The probability of a main steam line break occurring during the individual short time periods the HELB barriers were open is very low. Therefore, the safety significance of the individual events is low.

A risk informed assessment of the change in core damage frequency caused by the HELB barrier breaches was performed. The assessment conservatively does not credit automatic steam line isolation, and uses pipe break frequencies from EPRI 1021086 to estimate the frequency of occurrence of line breaks larger than 1" equivalent break size for the main steam lines in the turbine building.

The risk assessment modeled the control room, turbine building, and other locations of interest, and the transient temperatures calculated for a range of break sizes at various locations in the turbine building. The results confirm that for all but the largest break sizes located immediately adjacent to the open HELB barriers, and with a jet directed at the barrier opening, sufficient time (more than a minute to several minutes) would be available to recognize the indications of a line break and to implement the manual actions necessary to isolate the break before the locations of concern (particularly the control room or the cable spreading room) became harsh environments.

Credit is taken for the ability of the operator and door attendant to each isolate the source of the steam by manually closing the main steam isolation valves and by closing the open door respectively. Owing to the rapidity of the temperature transient for the least likely large break sizes located close to the control room or cable spreading room, a human failure probability of 50% is used for each of these independent manual actions for all breaks regardless of size or location. The increase in core damage frequency is 5.0E-07/reactor operating year. Accordingly, the safety significance of this condition is low.

**Cause:**

The cause of the condition was that HELB programmatic requirements did not incorporate applicable industry guidance. The program permitted barriers to be prevented from closing and did not require an analysis of postulated HELB effects on safety-related equipment during barrier breaches. These program deficiencies led to the effects of a potential HELB event not being appropriately considered.

**Corrective Actions:**

The following corrective actions were taken:

- The HELB administrative procedure was revised to reflect applicable industry guidance.
- Pending work packages for HELB related work were updated with revised HELB requirements.

**Previous Occurrences:**

None

**Failed Components Identified:**

None