



December 18, 2012

NRC 2012-0119
10 CFR 50.73

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 266/2012-002-02
Condition Prohibited by Technical Specification 3.7.5, Auxiliary Feedwater

Enclosed is Licensee Event Report (LER) 266/2012-002-02 for Point Beach Nuclear Plant (PBNP), Units 1 and 2. This LER provides the safety significance for internal and external events.

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 be "Larry Meyer".

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

NRC FORM 366 (10-2010)		U.S. NUCLEAR REGULATORY COMMISSION		APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013	
LICENSEE EVENT REPORT (LER)					
1. FACILITY NAME Point Beach Nuclear Plant				2. DOCKET NUMBER 05000266	
3. PAGE 1 of 3					
4. TITLE Condition Prohibited by Technical Specification 3.7.5, Auxiliary Feedwater					
5. EVENT DATE		6. LER NUMBER		7. REPORT DATE	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.
05	21	2012	2012	- 002	- 02
MONTH		DAY		YEAR	
05		21		2012	
8. OTHER FACILITIES INVOLVED					
FACILITY NAME: NA DOCKET NUMBER: NA					
9. OPERATING MODE MODE 1		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 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 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 checked="" 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 Kim Locke - Engineering Analyst				TELEPHONE NUMBER (Include Area Code) 920/755-7655	
13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT					
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	
X	BA	CPLG	T199	YES	
14. SUPPLEMENTAL REPORT EXPECTED				15. EXPECTED SUBMISSION DATE	
<input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)				<input checked="" type="checkbox"/> NO	
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)					
<p>On May 21, 2012 at 0054, the 1P-29 Turbine Driven Auxiliary Feedwater Pump (TDAFWP) was removed from service to perform quarterly testing. During the testing a degraded coupling condition was identified. At 0319 on May 21, 2012, the quarterly test was aborted and an investigation was started to determine the cause of the degraded coupling.</p> <p>During the investigation a misalignment between the 1P-29 turbine and pump was discovered. NextEra concluded that the misalignment between the turbine and pump was the cause of the degraded coupling. The coupling was replaced and the turbine and pump were re-aligned.</p> <p>A technical assessment for reportability was completed on June 21, 2012. NextEra determined that from the time surveillance was performed on the 1P-29 TDAFWP on March 13, 2012, until it was returned to service at 1900 on May 23, 2012, 1P-29 may not have been able to perform its design and licensing basis functions. Therefore, Technical Specification 3.7.5 was not met.</p> <p>Pursuant to 10 CFR 50.73(a)(2)(i)(B), the event is reportable as a condition prohibited by Technical Specifications.</p>					

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

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NARRATIVE**Description of the Event**

On May 21, 2012 at 0054, the 1P-29 Turbine Driven Auxiliary Feedwater Pump (TDAFWP) [BA] was removed from service to perform cold start quarterly testing of the turbine-driven auxiliary feed pump and valves. During the testing a degraded coupling condition was identified. At 0319 on May 21, 2012, the quarterly test was aborted and an investigation was started to determine the cause of the degraded coupling.

During the investigation a misalignment between the 1P-29 turbine and pump was discovered. NextEra concluded that the 1P-29 turbine exhaust steam piping was not installed properly during original construction contributing to cold piping spring and coupling misalignment. The misalignment of the turbine and pump was the cause of the degraded coupling. The coupling was replaced and the 1P-29 turbine and pump were re-aligned. On May 23, 2012, the cold start quarterly test of turbine-driven auxiliary feed pump and valve was completed satisfactory. On June 20, 2012 a tapered wedge was installed in the exhaust flange of 1P-29 to resolve the exhaust piping cold spring.

A technical assessment for reportability was completed on June 21, 2012. NextEra determined that from the time surveillance was performed on the 1P-29 TDAFWP on March 13, 2012, until it was returned to service on May 23, 2012, 1P-29 may not have been able to perform its design and licensing basis functions. Therefore, Technical Specification Required Action 3.7.5.B to restore AFW pump system to operable within 72 hours was not met.

A review of the motor driven auxiliary feedwater pump (1P-53) availability was performed. NextEra determined that 1P-53 motor driven auxiliary feedwater pump [BA] remained available throughout the period of concern. Therefore, there was no Safety System Functional Failure associated with the condition of 1P-29 TDAFWP.

Analysis of the Event

The TDAFWPs (1P-29 and 2P-29) were installed as original equipment at PBNP. Terry Steam Turbine Company manufactured the drive turbine and supplied it to Byron Jackson, where the turbines were assembled on the pump skids. The pumps were installed with a geared coupling which was changed to a flexible disc coupling in 1988.

The 1P-29 TDAFWP was last aligned during the Unit 1 refueling outage in the Fall of 2011. Exhaust system piping flange misalignment with the turbine flange resulted in stresses on the turbine and led to misalignment between the turbine and pump. This misalignment caused the coupling to degrade.

Adjustments were made to the turbine position such that final alignment was achieved within the manufacturer suggested maximum alignment in May 2012 (for expected hot conditions).

Prior to discovery of the coupling degradation on May 21, 2012, at 0319, 1P-29 ran successfully for 7 hours and 59 minutes in support of quarterly surveillance testing and Woodward governor adjustment. On March 13, 2012, 6 hours 49 minutes of run time were accrued during the performance of cold start of turbine-driven auxiliary feed pump and governor compensation adjustment. In addition, 1P-29 was operated for post maintenance testing from 1444 to 1502 on March 13, 2012. An additional 1 hour and 10 minutes of run time was accrued on May 21, 2012, before quarterly testing was aborted at 0319. This provides essentially 8 hours of successful performance during these tests which demonstrates that 1P-29, TDAFWP, would have been able perform its safety-related functions for at least 8 hours up until 0307 on March 13, 2012, when it was taken out of service for performance of cold start of turbine-driven auxiliary feed pump and governor compensation adjustment.

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NARRATIVE

Analysis of Safety Significance

NextEra determined that the safety significance of this event from internal and external events is of low to moderate safety significance. The dominant contributor was determined to be a fire in the cable spreading room that would require local start of the motor-driven AFW pump 1P-53.

Corrective Actions

The cold spring was resolved from 1P-29 Turbine Exhaust Steam Piping on June 20, 2012, by installing a tapered wedge in the exhaust flange connection.

Similar Events

None

Failed Components

Thomas 54 Size 262 coupling