



August 17, 2012

NRC 2012-0060
10 CFR 50.73

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

Point Beach Nuclear Plant, Unit 1
Docket 50-266
Renewed License No. DPR-24

Licensee Event Report 266/2012-002-00
Condition Prohibited by Technical Specification 3.7.5, Auxiliary Feedwater

Enclosed is Licensee Event Report (LER) 266/2012-002-00 for Point Beach Nuclear Plant, Unit 1. NextEra Energy Point Beach, LLC is providing this LER regarding Technical Specification 3.7.5 not being met for the Unit 1 turbine driven auxiliary feedwater pump.

This submittal contains no new or revised regulatory commitments.

If you have questions or require additional information, please contact Mr. Jim Costedio at 920/755-7427.

Very truly yours,

NextEra Energy Point Beach, LLC

A handwritten signature in black ink that reads "L. U. Meyer" with a stylized flourish at the end.

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)		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.resourse@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
 Condition Prohibited by Technical Specification 3.7.5, Auxiliary Feedwater

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
05	21	2012	2012	002	00	08	20	2012	NA	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"/> 20.2201(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	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	MANUFACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
X	BA	CPLG	T199	YES	NA	NA	NA	NA	NA

14. SUPPLEMENTAL REPORT EXPECTED <input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE)	<input type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH 09	DAY 20	YEAR 2012
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

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.

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.

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.

Pursuant to 10 CFR 50.73(a)(2)(i)(B), the event is reportable as a condition prohibited by Technical Specifications.

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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 internal risk for increase in core damage probability to be of very low safety significance. The determination of the safety significance from external events is not yet complete. A supplement to this LER will be submitted when this determination is complete.

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