April 22, 2011

NRC 2011-0043
10 CFR 50.73

Regional Administrator, Region III
U. S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

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

Licensee Event Report 301/2011-001-00
Both Trains of SI Inoperable

Enclosed is Licensee Event Report (LER) 301/2011-001-00 for Point Beach Nuclear
Plant (PBNP), Unit 2. Pursuant to 10 CFR 50.73(a)(2)(v)(D), the event is reportable as a
degraded accident mitigation because of 2-emergency core cooling system (ECCS) trains were
inoperable.

This submittal contains no new or revised regulatory commitments.

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

Very truly yours,

NextEra Energy Point Beach, LLC

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)

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Point Beach Nuclear Plant	05000301	1 of 3

4. TITLE
Both Trains of SI Inoperable

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
02	27	2011	2011	001	00	04	22	2011	FACILITY NAME	DOCKET NUMBER

9. OPERATING MODE	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR§: *(Check all that apply)*			
MODE 1	☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
	☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
	☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
	☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
10. POWER LEVEL	☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
	☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
100%	☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
	☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
	☐ 20.2203(a)(2)(vi)	☐ 50.73(a)(2)(i)(B)	☒ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER	
NAME	TELEPHONE NUMBER (Include Area Code)
Brenda M. Scherwinski	920/755-7752

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
B	BQ	P	B580	N					

14. SUPPLEMENTAL REPORT EXPECTED		15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO					

ABSTRACT *(Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)*

On February 27, 2011, at 2159 CST, during the testing of the A train safety injection (SI) system [BQ], it was discovered that the oiler for the Unit 2, B train SI pump, had rotated and the oil had drained out. The B train SI pump was declared inoperable. At the time of the event, the A train of SI was out of service for performance of a routine inservice test. Because both trains of SI were inoperable, LCO 3.0.3 was entered. Upon completion of the A train inservice test, Unit 2 exited LCO 3.0.3 at 2211 CST.

Immediate corrective actions taken included restoring the oiler to the vertical position, refilling it and performing a 5-minute pump run. The root cause of the event was determined to be a 1995 modification to the SI pump oiler which introduced a latent design/configuration flaw. Additional corrective actions will include a design change to the SI pumps and oiler assemblies for both units to reduce the possibility of accidental misalignments. The actions are being tracked to completion in the corrective action program.

An 8-hour ENS report was made in accordance with 10 CFR 50.72(b)(3)(v)(D) on February 28, 2011 at 0345 CST.

NRC FORM 366A
(10-2010)

U.S. NUCLEAR REGULATORY COMMISSION

LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

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NARRATIVE

Event Description

On February 27, 2011, at 2159 CST, with Unit 2 at 100% power, it was discovered that the oiler for the Unit 2 B train SI pump (2P-15B) [BQ], had rotated and the oil had drained out. The B train SI pump was immediately declared inoperable. At the time of the event, the A train of SI was out of service for performance of a routine inservice test. Because both trains of SI were inoperable, LCO 3.0.3 was entered. Upon completion of the A train inservice test, Unit 2 exited LCO 3.0.3 at 2211 CST.

This licensee event report is being submitted in accordance with 10 CFR 50.73(a)(2)(v)(D), an event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to mitigate the consequences of an accident. This event is classified as a safety system functional failure per NEI 99-02.

Cause of the Event

The root cause of the event was a 1995 modification to the SI pump oiler which introduced a latent design/configuration flaw. The flaw made the oilers susceptible to failure as a result of an inadvertent bumping event. There is no definitive time when the B SI pump oiler was rotated other than the time of discovery at 2159 on February 27, 2011, and there is no conclusive indication that the discrepancy existed prior to the discovery.

Analysis of the Event

The SI system is part of the emergency core cooling system (ECCS). Its primary purpose is to automatically deliver borated cooling water to the reactor core in the event of a loss of coolant accident (LOCA). The SI system will also insert negative reactivity into the core in the form of borated water during an uncontrolled plant cool down following a main steam line break or an accidental steam release.

The design basis of the ECCS is to provide two independent trains of ECCS for accident mitigation. During the 12-minute period that 2P-15A was out of service for inservice testing and 2P-15B was inoperable, high head safety injection could not be automatically initiated.

Analysis of Safety Significance

Following a large-break loss of coolant accident (LOCA), the reactor coolant system (RCS) would be depressurized and voided of coolant rapidly and a high flow rate is required to quickly recover the exposed fuel rods and limit possible core damage. To achieve this objective, one residual heat removal (RHR) pump (high flow, low head) was available to deliver borated water to the core during the period both SI pumps were out of service.

During the time both trains of SI were inoperable, the delta core damage frequency (CDF) and delta large early release frequency (LERF) were below the annual cumulative probabilities. Therefore, the safety significance of the event is low.

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(10-2010)

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NARRATIVE

Corrective Actions

The immediate corrective action included restoration of the oiler to the vertical position, refilling the oiler with oil, performing 5-minute pump run.

In addition to the above, the SI pump oiler assemblies for both units will be redesigned to reduce the possibility of an accidental misalignment. This action is being tracked to completion in the corrective action program (CAP).

Similar Events

None

Failed Components

None