



May 12, 2016

NRC 2016-0019  
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 266/2016-001-00  
Unit 1 Degraded Condition

Enclosed is Licensee Event Report (LER) 266/2016-001-00 for Point Beach Nuclear Plant, Unit 1. NextEra Energy Point Beach, LLC is providing this LER regarding the degraded condition on Unit 1.

This letter contains no new regulatory commitments.

If you have any questions please contact Mr. Bryan Woyak, Licensing Manager, at 920/755-7599.

Very truly yours,

NextEra Energy Point Beach, LLC

A handwritten signature in black ink, appearing to read "Eric McCartney".

Eric McCartney  
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)**  
(See Page 2 for required number of digits/characters for each block)

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 and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [Infocollcils.Resource@nrc.gov](mailto:Infocollcils.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.

<b>1. FACILITY NAME</b> Point Beach Nuclear Plant Unit 1	<b>2. DOCKET NUMBER</b> 05000266	<b>3. PAGE</b> 1 OF 2
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**4. TITLE**  
Unit 1 Degraded Condition

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
03	15	2016	2016	001	00	05	12	2016	NA	NA

<b>9. OPERATING MODE</b>	<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</b>			
MODE 5	<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 checked="" 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)
<b>10. POWER LEVEL</b>	<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)
0%	<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 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**

FACILITY NAME Thomas P. Schneider, Senior Licensing Engineer	TELEPHONE NUMBER (Include Area Code) 920-755-7797
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**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	CB	V	C635	Y	NA	NA	NA	NA	NA

<b>14. SUPPLEMENTAL REPORT EXPECTED</b>	<b>15. EXPECTED SUBMISSION DATE</b>	MONTH	DAY	YEAR
YES (If yes, complete 15. EXPECTED SUBMISSION DATE) X NO		NA	NA	NA

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

At 0649 on March 15, 2016 with Unit 1 shut down in MODE 5 for refueling activities, a boric acid indication upstream of the valve seating surface on the inlet of the valve body of 1CV-200B, Letdown Orifice B Outlet Control Valve was identified as a through-wall flaw. The flaw location was within the reactor coolant system (RCS) pressure boundary as defined by 10 CFR 50.2, "Definitions." The valve body is original plant equipment.

This event is being reported pursuant to 10 CFR 50.73(a)(2)(ii)(A) for material defects in the primary coolant system that were not acceptable in accordance with ASME Section XI.



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

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 and Information Collections Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to [Infocollects.Resource@nrc.gov](mailto: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 Unit 1	2. DOCKET  05000266	6. LER NUMBER			3. PAGE  2 OF 2	
		YEAR	SEQUENTIAL NUMBER	REV NO.		
		2016	001	00		

**NARRATIVE**

**Description of the Event:**

At 0649 on March 15, 2016 with Unit 1 shut down in MODE 5 for refueling activities, a boric acid indication upstream of the valve seating surface on the inlet of the valve body of 1CV-200B, Letdown Orifice B Outlet Control Valve was identified as a through-wall flaw. The flaw location was within the reactor coolant system (RCS) pressure boundary as defined by 10 CFR 50.2, "Definitions." The valve body is original plant equipment.

The Unit 1 Letdown Orifice B Outlet Control Valve (1CV-200B) has been replaced and returned to service.

This 60 day licensee event report is being submitted in accordance with the requirements of 10 CFR 50.73(a)(2)(ii)(A) for any event or condition that results in the condition of the nuclear power plant, including its principal safety barriers, being degraded. The material defect in the primary coolant system could not be found acceptable in accordance with ASME Section XI, IWB-3600, "Analytical Evaluation of Flaws" or ASME Section XI, Table IWB-3410-1, "Acceptance Standards."

**Cause of the Event:**

The most likely cause of the degraded barrier was localized corrosion near a sand inclusion indication in the valve body.

**Analysis of the Event:**

Maintenance activities identified a through-wall flaw on the valve body of the Letdown Orifice B Outlet Control Valve. The flaw location was upstream of the valve seating surface, on the inlet of the valve body. 1CV-200B is one of three valves in parallel in the same application. The valve was within the RCS pressure boundary, which is defined as being connected to the RCS, up to and including the outermost containment isolation valve in system piping which penetrates the primary reactor containment. A causal evaluation determined the through-wall flaw in the valve body to most likely be the result of localized corrosion near a sand inclusion indication. The indication was identified during the manufacturing examination and testing processes. The indication was accepted by the manufacturer using the acceptance criteria of ASTM Specification E71, "Reference Radiographs for Steel Casting up to 2 inches in Thickness." The localized corrosion most likely allowed system contents to leech through the sand inclusion. The valve body is original plant equipment and has been in service the entire life of the plant. The flaw has been corrected by replacement of the valve body.

**Corrective Actions:**

The Unit 1 Letdown Orifice B Outlet Control Valve (1CV-200B) has been replaced and returned to service. Destructive testing will be performed on the removed valve to validate the apparent cause. Additional actions/reviews will be taken as required following receipt of the destructive testing report. Examinations have been completed as part of the extent of condition on three valves from the same heat number that had manufacturing indications. A corrective action has been created to perform a visual examination of one additional valve during the next refueling outage.

**Safety Significance:**

The event was determined to be of very low safety significance. 1CV-200B can be isolated from the RCS by a remotely operated valve 1RC-427, Reactor Coolant Loop B Cold Leg to Charging and Volume Control System (CVCS) Letdown Isolation Valve. Components with similar sand inclusion indications have been or will be visually examined for evidence of boric acid indications. While the condition was present, there was no loss of any safety systems, structures or components needed to shut down the reactor, maintain safe shutdown conditions, remove residual heat, control the release of radioactive material or mitigate the consequences of an accident. There was no impact on the health and safety of the public as a result of this condition.

**Similar Events:**

There have not been similar events of this degraded condition in the past three years.

**Component Failure Data:**

2 INCH-1500 LB COPES-VULCAN MODEL 63 GLOBE VALVE