



November 26, 2018

10 CFR 50.73

Docket No. 50-443  
SBK-L-18184

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001


Seabrook Station  
Licensee Event Report (LER) 2018-003-00  
Overpower Delta T Setpoint Exceeded Allowable Value for Time longer than Permitted  
by the Technical Specifications

Enclosed is Licensee Event Report (LER) 2018-003-00. This LER reports an event that occurred at Seabrook Station on September 27, 2018. This event is being reported pursuant to the requirements of 10 CFR 50.73(a)(2)(i)(B).

Should you require further information regarding this matter, please contact me at (603) 773-7932.

Sincerely,

NextEra Energy Seabrook, LLC

 FOR KENNETH BROWNE  
Kenneth Browne  
Licensing Manager

cc: D. Lew, Acting NRC Region I Administrator  
J. Poole, NRC Project Manager  
P. Cataldo, NRC Senior Resident Inspector

Enclosure to SBK-L-18184



**LICENSEE EVENT REPORT (LER)**

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

(See NUREG-1022, R.3 for instruction and guidance for completing this form  
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 Information Services Branch (T-2 F43), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by e-mail to [Infocollects.Resource@nrc.gov](mailto:Infocollects.Resource@nrc.gov), and to the Desk Officer, Office of Information and Regulatory Affairs, NEOF-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> Seabrook Station	<b>2. Docket Number</b> 05000 443	<b>3. Page</b> 1 OF 2
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**4. Title**  
Overpower Delta T Setpoint Exceeded Allowable Value for Time Longer than Permitted by the Technical Specifications

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
09	27	2018	2018	003	00	11	26	2018	Facility Name	Docket Number 05000
									Facility Name	Docket Number 05000

9. Operating Mode	11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)			
1	<input type="checkbox"/> 20.2201(b)	<input type="checkbox"/> 20.2203(a)(3)(i)	<input type="checkbox"/> 50.73(a)(2)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)
	<input type="checkbox"/> 20.2201(d)	<input type="checkbox"/> 20.2203(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(ii)(B)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)
	<input type="checkbox"/> 20.2203(a)(1)	<input type="checkbox"/> 20.2203(a)(4)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)(A)
	<input type="checkbox"/> 20.2203(a)(2)(i)	<input type="checkbox"/> 50.36(c)(1)(i)(A)	<input type="checkbox"/> 50.73(a)(2)(iv)(A)	<input type="checkbox"/> 50.73(a)(2)(x)
10. Power Level	<input type="checkbox"/> 20.2203(a)(2)(ii)	<input type="checkbox"/> 50.36(c)(1)(ii)(A)	<input type="checkbox"/> 50.73(a)(2)(v)(A)	<input type="checkbox"/> 73.71(a)(4)
97	<input type="checkbox"/> 20.2203(a)(2)(iii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(v)(B)	<input type="checkbox"/> 73.71(a)(5)
	<input type="checkbox"/> 20.2203(a)(2)(iv)	<input type="checkbox"/> 50.46(a)(3)(ii)	<input type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> 73.77(a)(1)
	<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)(D)	<input type="checkbox"/> 73.77(a)(2)(i)
	<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)(vii)	<input type="checkbox"/> 73.77(a)(2)(ii)
		<input type="checkbox"/> 50.73(a)(2)(i)(C)	<input type="checkbox"/> Other (Specify in Abstract below or in NRC Form 366A)	

**12. Licensee Contact for this LER**

Licensee Contact Ken Browne - Licensing Manager	Telephone Number (Include Area Code) (603)773-7932
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**13. Complete One Line for each Component Failure Described in this Report**

Cause	System	Component	Manufacturer	Reportable to ICES	Cause	System	Component	Manufacturer	Reportable to ICES
X	AB	CBD		Yes					

<b>14. Supplemental Report Expected</b>	<b>15. Expected Submission Date</b>	Month	Day	Year
<input type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date) <input checked="" type="checkbox"/> No				

**Abstract** (Limit to 1400 spaces, i.e., approximately 14 single-spaced typewritten lines)  
 On September 27, 2018 with the plant operating in Mode 1, control room operators discovered spiking and elevated operation of the reactor coolant loop 4 overpower delta T (OPDT) setpoint during a computer trend review. The OPDT setpoint spike and elevated operation, which exceeded its allowable Technical Specifications (TS) value, started at approximately 0200 on September 25, 2018 and remained above the allowable value until 1600 on September 26, 2018.

The cause of this condition was the erratic operation of one of the four associated Westinghouse 7300 cards. The corrective action was to replace all four of the 7300 cards.

The condition had no impact on public health and safety because the three other redundant OPDT channels remained operable during the time the loop 4 instrument was inoperable.



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

(See NUREG-1022, R.3 for instruction and guidance for completing this form  
<http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/>)

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 Information Services Branch (T-2 F43), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by 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 Seabrook Station	2. DOCKET NUMBER 05000-443	3. LER NUMBER		
		YEAR 2018	SEQUENTIAL NUMBER 003	REV NO. 00

**NARRATIVE**

**Description of the Event -**

On September 27, 2018 with the plant operating in Mode 1, control room operators discovered spiking and elevated operation in the reactor coolant [EIS: AB] loop 4 overpower delta T (OPDT) setpoint during a computer trend review. The OPDT setpoint spike and elevated operation, exceeded its allowable Technical Specifications (TS) value for a time longer than permitted by the TS, which started at approximately 0200 on September 25, 2018 and remained above the allowable value for approximately 38 hours until 1600 on September 26, 2018.

**Cause -**

Initial troubleshooting identified that a malfunction in one of the four associated Westinghouse 7300 cards [EIS: CBD] was the most likely cause of the setpoint spike and elevated operation, but no one board was found to be the direct cause.

**Analysis of the Event -**

The reactor trip system automatically keeps the reactor operating within a safe region by shutting down the reactor whenever the limits of the region are approached. The OPDT trip protects against excessive power (fuel rod rating protection), and trips the reactor using a two out of four coincidence using a variable setpoint that is continuously calculated by the 7300 system analog circuitry. The OPDT trip is designed to provide sufficient protection for slow transients.

Three other redundant OPDT channels remained operable during the time the loop 4 instrument was inoperable. Since two OPDT channels are sufficient to initiate a reactor trip, the condition did not result in a safety system functional failure and had no adverse impact on the plant or on the health and safety of the public. No inoperable structures, systems, or components contributed to this event.

**Corrective Actions-**

The corrective action was to replace all four of the 7300 cards.

**Additional Information-**

The Energy Industry Identification System (EIS) codes are included in this LER in the following format: [AB - Reactor Coolant System, CBD - Board, Control].

**Similar Events -**

None.