



FPL Energy
Seabrook Station

FPL Energy Seabrook Station
P.O. Box 300
Seabrook, NH 03874
(603) 773-7000

DEC 28 2005

Docket No. 50-443
SBK-L-05272

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

Seabrook Station
Licensee Event Report (LER) 2005-008-00 for
Noncompliance with the Technical Specifications
Due to Inoperable Instrument Bus Inverter

Enclosed is Licensee Event Report (LER) 2005-008-00. This LER reports an event that occurred at Seabrook Station on November 30, 2005. 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 Mr. James M. Peschel, Regulatory Programs Manager, at (603) 773-7194.

Very truly yours,

FPL ENERGY SEABROOK, LLC

Michael W. Kiley
Station Director

cc: S. J. Collins, NRC Region I Administrator
G. E. Miller, NRC Project Manager, Project Directorate I-2
G. T. Dentel, NRC Senior Resident Inspector

JE22

ENCLOSURE TO SBK-L-05272

LICENSEE EVENT REPORT (LER)

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

Estimated burden per response to comply with this mandatory collection request: 50 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the Records and FOIA/Privacy Service Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollect@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. PAGE 1 OF 3
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4. TITLE
Technical Specification Violation due to Inoperable Instrument Bus Inverter

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
11	30	2005	2005	- 008 -	00	12	28	2005	N/A	05000
									N/A	05000

9. OPERATING 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

FACILITY NAME James M. Peschel, Regulatory Programs Manager	TELEPHONE NUMBER (Include Area Code) 603-773-7194
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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	EE	INVT	E209	N					

14. SUPPLEMENTAL REPORT EXPECTED <input type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input checked="" type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR

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

On November 30, 2005 at 0924, Seabrook Station entered a condition prohibited by the Technical Specifications (TS) when vital instrument bus inverter 1F was inoperable for greater than 30 hours. The TS provide a 24-hour allowed outage time for an inoperable vital inverter, and if the inverter is not restored to operable status within 24 hours, the TS require the plant to shutdown to Mode 3 within the following 6 hours. The inverter was inoperable for approximately 36 hours. At 0220 on November 30, 2005, prior to the expiration of the 24-hour allowed outage time, the NRC granted a Notice of Enforcement Discretion that extended the allowed outage time by 18 hours. As a result, Seabrook Station operation continued at 100% power for the duration that the inverter was inoperable. The cause of the inoperability of the inverter was a circuit card failure. The faulty card was replaced and the inverter was restored to operable status at 1522 on November 30, 2005. No adverse consequences resulted from this event.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)	DOCKET (2)	LER NUMBER (6)			PAGE (3)
Seabrook Station	0500-0443	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	2 OF 3
		2005	- 008	- 00	

17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

I. Description of Event

On November 29, 2005 at 0323 with the station in Mode 1 and at 100% power, Inverter 1F [EE, INVT] failed, and associated vital power panel 1F automatically transferred to its maintenance power supply. Subsequent investigation, in consultation with the vendor, Elgar, determined that the most probable cause was a card failure in the A-2 leg of the inverter. While AC vital panel 1F remained energized from its maintenance power supply, Inverter 1F was not available to energize power panel 1F while connected to DC Bus 11B [EE,BU] within the 24 hours required by TS 3.8.3.1. action b. During troubleshooting it was determined that an additional 18 hours would be necessary to complete the repairs to inverter 1F, perform post-maintenance testing, and restore the inverter to operable status. Compliance with the 24-hour allowed outage time (AOT) would have forced a shutdown of Seabrook Station prior to completing restoration of the inverter. Such a shutdown would have introduced an unnecessary plant transient with potential safety consequences and operational risks that are not commensurate with a concern for public health and safety. At 0220 on November 30, 2005, prior to the expiration of the 24-hour allowed outage time, the NRC granted a Notice of Enforcement Discretion that extended the allowed outage time by 18 hours. As a result, Seabrook Station operation continued at 100% power for the duration that the inverter was inoperable. To expedite the repair and restore the Inverter to an operable status, three circuit cards were simultaneously removed, replaced and the connections cleaned and verified. The inverter was restored to operable status at 1522 on November 30, 2005. No adverse consequences resulted from this event.

II. Cause of Event

The cause of the inoperability of the inverter was a circuit card failure. Troubleshooting, repair and testing of the inverter could not be completed within the 24 hour Allowed Outage Time (AOT) specified for the inoperable inverter, resulting in the request for and granting of Enforcement Discretion.

III. Analysis of Event

On November 29, 2005 at 0323 with the station in Mode 1 and at 100% power, Inverter 1F failed, and associated vital power panel 1F automatically transferred to its maintenance power supply. This maintenance supply is powered by the Train B Emergency Diesel Generator (EDG), so the inverter 1F failure only represented a marginal loss of redundant supply (i.e., DC power input) to the associated loads, but did not fail any equipment. During operation with an inoperable, out-of-service vital instrument bus inverter, the associated balance-of-plant (BOP) instrument bus is energized from its maintenance source through a safety-related static transfer switch. The source of power for the maintenance supply is a nonsafety-related motor control center (MCC), which relies on the EDG for back-up power. Should a loss of off-site power (LOOP) occur while an instrument bus is aligned to its maintenance source, the instrument bus would have remain de-energized for approximately 10 seconds until the EDG started and energized the maintenance supply. In order for the instrument bus to remain de-energized, the EDG would have to fail or the MCC that provides the maintenance power source would have to fail to energize. While Inverter 1F was inoperable the redundant instrument bus inverter was available, operable and aligned to a DC power supply. The Supplemental Emergency Power System (SEPS) was also available and operable to supply power to the bus in the event of a station blackout.

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17. NARRATIVE (If more space is required, use additional copies of NRC Form 366A) (17)

This event is of regulatory significance because it met the reporting criteria of 10 CFR 50.73 (a)(2)(i)(B) for a condition prohibited by the TS. The event was reported to the NRC on November 30, 2005 at 1714 (event # 421784) in accordance with the Facility Operating License Condition 2.G as a violation of the TS.

No consequences resulted from this event and, therefore, the event had no adverse impact on the plant or on the health and safety of the public. This condition did not involve a Safety System Functional Failure and no inoperable structures, systems, or components contributed to this event.

IV. Corrective Action

Inverter 1F was repaired and returned to service on November 30, 2005 at 1522.

On December 6, 2005 FPL Energy Seabrook submitted License Amendment Request (LAR) 05-11 to extend the allowed outage time detailed in TS 3.8.3.1. action b for Inverters 1E and 1F from 24 hours to seven days.

V. Additional Information

At the time of this report it is unknown what caused the failure of the circuit card to perform its intended function. As part of the equipment failure analysis, the circuit cards removed from Inverter 1F have been sent to Elgar for analysis. A Root Cause of the event is also being performed.

The Energy Industry Identification System (EIIS) codes are included in this LER in the following format: [EIIS system identifier, EIIS component identifier].

Similar Events

Seabrook Station has had no similar events involving inverter failure.