

W3F1-2026-00035

10 CFR 50.73

August 17, 2026

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

Subject: Licensee Event Report 50-382/2026-002-00, Essential Chiller 'B' Compressor
Motor Junction Box Arcing Resulting in Inoperability
Waterford Steam Electric Station, Unit 3
NRC Docket No. 50-382
Renewed Facility Operating License No. NPF-38

Entergy Operations, Inc. (Entergy) submits the enclosed Licensee Event Report (LER) 50-382/2026-002-00 for Waterford Steam Electric Station, Unit 3 (WF3). The event reported herein is reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) Any operation or condition which was prohibited by the plant's Technical Specifications, and 10 CFR 50.73(a)(2)(v)(D) Any 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 letter contains no new commitments.

Should you have any questions concerning this issue, please contact me at 504-739-6747.

Respectfully,

**John R.
Twarog**

Digitally signed by John R. Twarog
DN: cn=John R. Twarog, c=US,
o=Waterford 3 Regulatory and Emergency
Preparedness Manager, ou=Waterford 3
Regulatory and Emergency Preparedness
Manager, email=jtwarog@entergy.com
Date: 2026.08.17 06:02:26 -0500

John Twarog

JRT/cm

Enclosure: LER 50-382/2026-002-00

cc: NRC Region IV Regional Administrator
NRC Senior Resident Inspector – Waterford Steam Electric Station, Unit 3
NRC Project Manager – Waterford Steam Electric Station, Unit 3

Enclosure

W3F1-2026-00035

Licensee Event Report

50-382/2026-002-00



LICENSEE EVENT REPORT (LER)

(See Page 3 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 FOIA, Library, and Information Collections Branch (T-6 A10M), U. S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by email to Infocollections.Resource@nrc.gov, and the OMB reviewer at: OMB Office of Information and Regulatory Affairs, (3150-0104), Attn: Desk Officer for the Nuclear Regulatory Commission, 725 17th Street NW, Washington, DC 20503. The NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless the document requesting or requiring the collection displays a currently valid OMB control number.

1. Facility Name

Waterford Steam Electric Station, Unit 3

☒ 050☐ 052☐ 053

2. Docket Number

00382

3. Page

1 OF 4

4. Title

Essential Chiller 'B' Compressor Motor Junction Box Arcing Resulting in Inoperability

5. Event Date

Month

Day

Year

06

17

2026

6. LER Number

Year

Sequential
NumberRevision
No.

2026

- 002 -

00

7. Report Date

Month

Day

Year

08

17

2026

8. Other Facilities Involved

Facility Name

N/A

☐ 050

Docket Number

N/A

Facility Name

N/A

☐ 052

Docket Number

N/A

Facility Name

N/A

☐ 053

Docket Number

N/A

9. Operating Mode

Mode 1

10. Power Level

094

11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)

10 CFR Part 20

☐ 20.2203(a)(3)(i)☐ 50.69(g)☐ 50.73(a)(2)(v)(C)☐ 53.1640(a)(2)(ii)(A)☐ 73.77(a)(1)(ii)☐ 20.2201(b)☐ 20.2203(a)(3)(ii)☐ 50.73(a)(2)(i)(A)☒ 50.73(a)(2)(v)(D)☐ 53.1640(a)(2)(ii)(B)☐ 73.77(a)(2)(i)(A)☐ 20.2201(d)☐ 20.2203(a)(4)☒ 50.73(a)(2)(i)(B)☐ 50.73(a)(2)(vii)☐ 53.1640(a)(2)(iii)☐ 73.77(a)(2)(i)(B)☐ 20.2203(a)(1)

10 CFR Part 21

☐ 50.73(a)(2)(i)(C)☐ 50.73(a)(2)(viii)(A)☐ 53.1640(a)(2)(iv)☐ 73.1200(a)☐ 20.2203(a)(2)(i)☐ 21.2(c)☐ 50.73(a)(2)(ii)(A)☐ 50.73(a)(2)(viii)(B)☐ 53.1640(a)(2)(v)☐ 73.1200(b)☐ 20.2203(a)(2)(ii)

10 CFR Part 50

☐ 50.73(a)(2)(ii)(B)☐ 50.73(a)(2)(ix)(A)☐ 53.1640(a)(2)(vii)(A)☐ 73.1200(c)☐ 20.2203(a)(2)(iii)☐ 50.36(c)(1)(i)(A)☐ 50.73(a)(2)(iii)☐ 50.73(a)(2)(x)☐ 53.1640(a)(2)(viii)(A)☐ 73.1200(d)☐ 20.2203(a)(2)(iv)☐ 50.36(c)(1)(ii)(A)☐ 50.73(a)(2)(iv)(A)

10 CFR Part 53

☐ 53.1640(a)(2)(viii)(B)☐ 73.1200(e)☐ 20.2203(a)(2)(v)☐ 50.36(c)(2)☐ 50.73(a)(2)(v)(A)☐ 53.1640(a)(2)(i)(A)☐ 53.1640(a)(2)(ix)☐ 73.1200(f)☐ 20.2203(a)(2)(vi)☐ 50.46(a)(3)(ii)☐ 50.73(a)(2)(v)(B)☐ 53.1640(a)(2)(i)(B)

10 CFR Part 73

☐ 73.1200(g)☐ 53.1640(a)(2)(i)(C)☐ 73.77(a)(1)(i)☐ 73.1200(h)☐ OTHER (Specify here, in abstract, or NRC 366A).

12. Licensee Contact for this LER

Licensee Contact

John Twarog - Manager, Regulatory and Emergency Preparedness

Phone Number (Include area code)

504-739-6747

LICENSEE EVENT REPORT (LER) (Continued)

Page 2 OF 4

13. Complete One Line for each Component Failure Described in this Report

Cause	System	Component	Manufacturer	Reportable to IRIS	Cause	System	Component	Manufacturer	Reportable to IRIS
	KM	CHU	C150	Y					

14. Supplemental Report Expected

☐ No ☒ Yes (If yes, complete 15. Expected Submission Date)

15. Expected Submission Date

Month	Day	Year
09	25	2026

16. Abstract

At 1156 CDT on June 17, 2026, while Waterford Steam Electric, Unit 3 personnel were conducting replacement activities on Essential Chiller A, they observed visible discoloration and intermittent arcing on the top of the Essential Chiller B Compressor Motor Junction Box. The Control Room secured Essential Chiller B, which immediately stopped the sparking, and Essential Chilled Water Loop B was declared inoperable. Due to cascading TS, the B train of the Ultimate Heat Sink (UHS) was declared inoperable.

At 2224 CDT on June 17, 2026, a Tornado Watch was issued. Since the B train of the UHS was inoperable, these concurrent conditions would have required a plant required shutdown. A Notice of Enforcement Discretion (NOED) (ML26174A409) was requested due to the concurrent Tornado Watch. NRC verbally approved the NOED on June 18, 2026.

The direct cause for the Essential Chiller sparking and failure to be the Neutral Wye Terminal Lug Leads (T4, T5, T6) being inadequately insulated and had a bolted connection contacting the top panel of the motor termination box.

Immediate corrective actions included securing Essential Chiller B, replacing the degraded Neutral Wye Connecting Bolt, re-insulating the connector, rerouting it to prevent conductive contact, inspecting the motor termination box, and weld-repairing the junction box top. Essential Chiller B was restored to operable status on June 18, 2026, at 1105 CDT.

While the direct cause has been confirmed, evaluation of other potential causes is ongoing. A supplemental Licensee Event Report will be submitted in accordance with 10 CFR 50.73 to provide updated cause determination and additional corrective actions once the investigation is complete.

This condition was determined to be reportable in accordance with 10 CFR 50.73(a)(2)(i)(B) Any operation or condition which was prohibited by the plant's Technical Specifications, and 10 CFR 50.73(a)(2)(v)(D) Any 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.

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

(See NUREG-1022, R.3 for instruction and guidance for completing this form
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1. FACILITY NAME		2. DOCKET NUMBER	3. LER NUMBER		
Waterford Steam Electric Station, Unit 3		00382	YEAR	SEQUENTIAL NUMBER	REV NO.
			2026	002	0

NARRATIVE**Background**

Waterford Steam Electric Station, Unit 3 (WF3), is in the process of replacing three essential chillers [KM:CHU] due to equipment age and reliability. At the time of the event, the new Essential Chiller B installation was complete, Essential Chiller A was being installed, and Essential Chiller AB remained operable and had not been replaced. Essential Chiller B had been placed in service and declared operable on May 16, 2026, and had operated without issue until the event.

Event Description

At 1156 CDT on June 17, 2026, with WF3 operating in Mode 1 at 94% power, personnel performing replacement activities on Essential Chiller A observed visible discoloration and intermittent arcing on the top of the Essential Chiller B Compressor Motor Junction Box. Nuclear Auxiliary Operators were dispatched to investigate and confirmed a burn mark on the top of the 4 kV motor terminal box along with intermittent sparks emerging from the damaged location. No fire was reported.

The Control Room secured Essential Chiller B, stopping the sparking, and Essential Chilled Water Loop B was declared inoperable. Technical Specification (TS) 3.7.12 Action and cascading TS actions were entered.

Technical Specifications were cascaded based on this condition causing TS 3.7.4 "Ultimate Heat Sink", to be entered and the B train of the Ultimate Heat Sink [BS] to be declared inoperable. At 2224 CDT on June 17, 2026, the National Weather Service issued a Tornado Watch for St. Charles Parish causing entry into TS 3.7.4 Action "C" resulting in a 1-hour time clock to restore operability to the Ultimate Heat Sink or exit the Tornado Watch. A Notice of Enforcement Discretion (NOED) (ML26174A409) was approved by the NRC allowing 24 additional hours to correct the condition. The NRC verbally approved the NOED at 0110 CDT on June 18, 2026. The enforcement discretion period expired on June 18, 2026, at 2324 CDT. It is noted that the Tornado Watch that necessitated this request expired on June 18, 2026 at 0800 CDT, at which point TS 3.7.4, Action 'C' was exited. Essential Chiller B was restored to operable status on June 18, 2026, at 1105 CDT.

Event Cause

The direct cause for the Essential Chiller sparking and failure to be the Neutral Wye Terminal Lug Leads (T4, T5, T6) being inadequately insulated and had a bolted connection contacting the top panel of the motor termination box.

While the direct cause has been confirmed, evaluation of other potential causes is ongoing. A supplemental Licensee Event Report will be submitted in accordance with 10 CFR 50.73 to provide updated cause determination and additional corrective actions once the investigation is complete.



LICENSEE EVENT REPORT (LER) CONTINUATION SHEET

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1. FACILITY NAME

Waterford Steam Electric Station, Unit 3



050



052



053

2. DOCKET NUMBER

00382

3. LER NUMBER

YEAR

2026

SEQUENTIAL
NUMBER

002

REV
NO.

0

NARRATIVE

Safety Assessment

There were no radiological, environmental, or industrial impacts associated with this event. The health and safety of the public and site personnel were not impacted during this event. Essential Chiller AB remained available, no other safety-related equipment was out of service that would increase plant risk or impact the plant's ability to mitigate this condition. Based on these factors, overall PRA significance was determined to be low.

Corrective Actions

Immediate corrective actions included securing Essential Chiller B, and initiating investigative and repair work. Electricians identified inadequate insulation on the Neutral Wye Connecting Bolt and replaced the bolt. The connector was re-insulated in accordance with procedure and rerouted to a location that prevents contact with the terminal box wall. The Motor Terminal Box was inspected, and no internal component damage was found. The junction box top was weld repaired.

Additional corrective actions will be determined following the completion of the causal investigation and will be included in the supplemental Licensee Event Report.

Previous Similar Events

No previous similar occurrences were identified.

NOTE: Energy Industry Identification System (EIIS) codes are identified in the text as [XX].