



Entergy Operations, Inc.
P.O. Box 756
Port Gibson, MS 39150

Douglas A. Neve
Regulatory Assurance Manager
Grand Gulf Nuclear Station
Tel. (601) 437-2103

GNRO-2017/00057

October 12, 2017

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

SUBJECT: Completion of Grand Gulf Nuclear Station Shutdown Required by Technical Specifications Because of an Inoperable "A" Residual Heat Removal Pump
Docket No. 50-416
License No. NPF-29

Dear Sir or Madam:

Attached is Licensee Event Report (LER) 2017-006-00, Completion of Grand Gulf Nuclear Station Shutdown Required by Technical Specifications Because of an Inoperable "A" Residual Heat Removal Pump.

This letter contains no new commitments. Should you have any questions or require additional information, please contact Douglas Neve, Manager Regulatory Assurance at (601) 437-2103.

Sincerely,

A handwritten signature in black ink that reads "D Neve for Doug Neve".

Douglas Neve
Regulatory Assurance Manager
Grand Gulf Nuclear Station
DAN/ram

Attachment: Licensee Event Report (LER) 2017-006-00.

cc: (See Next Page)

CC:

U.S. Nuclear Regulatory Commission
ATTN: Mr. Siva Lingam
Mail Stop OWFN 8 B1
Rockville, MD 20852-2738

NRC Senior Resident Inspector
Grand Gulf Nuclear Station
Port Gibson, MS 39150

U. S. Nuclear Regulatory Commission
ATTN: Mr. Kriss Kennedy, NRR/DORL (w/2)
Mail Stop OWFN 8 B1
Washington, DC 20555-0001

Mr. John P. Boska, Project Manager
Plant Licensing Branch 1-1
Division of Operating Reactor Licensing
Office of Nuclear Regulatory Commission
U.S. Nuclear Regulatory Commission
Mail Stop 0-8-C2
Washington, DC 20555

Attachment

Licensee Event Report (LER) 2017-006-00.



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, 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 Grand Gulf Nuclear Station, Unit 1	2. DOCKET NUMBER 05000 416	3. PAGE 1 OF 3
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4. TITLE
Completion of Grand Gulf Nuclear Station Shutdown Required By Technical Specifications Because Of An Inoperable A Residual Heat Removal Pump

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
8	29	2017	2017	006	00	10	12	2017	N/A	05000 N/A
									FACILITY NAME	DOCKET NUMBER
									N/A	05000 N/A

11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)

9. OPERATING MODE 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)
	<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)
10. POWER LEVEL 65	<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 checked="" 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 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

FACILITY NAME Douglas A. Neve / Manager, Regulatory Assurance	TELEPHONE NUMBER (Include Area Code) (601) 437-2103
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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
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED	15. EXPECTED SUBMISSION DATE	MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO		12	28	2017

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

On August 22, 2017 at 2321 hours central daylight time, Grand Gulf Nuclear Station entered Technical Specification (TS) conditions for three Limiting Condition for Operations (LCOs) not met due to Residual Heat Removal 'A' (RHR A) being declared inoperable. Entergy Operations Inc. (Entergy) made the decision to shut down the plant based on the results of troubleshooting performed on the RHR A pump. The A RHR pump TS differential pressure was out of specification (low) and could not be returned to acceptable limits. Grand Gulf Nuclear Station initiated plant shutdown required by Technical Specifications 3.5.1, 3.6.1.7, and 3.6.2.3 at 1200 hours CDT on August 29, 2017, due to expected restoration of RHR A exceeding the completion time of 7 days prior to restoring Operability. The shutdown was completed and entry into MODE 3 occurred at 2217 hours CDT on August 29, 2017. The cause is under investigation and this LER will be supplemented upon completion of the causal analysis. Corrective Actions included the replacement of the A RHR pump and the successful retesting of the A RHR pump and restoration of the pump to operable status. This condition is reportable as a completion of a plant shutdown required by the TS.



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, 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	2. DOCKET	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV. NO.
Grand Gulf Nuclear Station, Unit 1	05000 416	2017 - 006 - 00		

NARRATIVE

Description

On August 22, 2017 at 2321 hours central daylight time (CDT), Grand Gulf Nuclear Station entered Technical Specification (TS) conditions for three Limiting Condition for Operations (LCOs) not met due to Residual Heat Removal [BO] 'A' (RHR A) being declared inoperable.

LCOs not met:

- 1) TS 3.5.1 for one low pressure ECCS injection/spray subsystem.
- 2) TS 3.6.1.7 for one RHR containment spray subsystem, and
- 3) TS 3.6.2.3 for one RHR suppression pool cooling subsystem.

Entergy Operations Inc. (Entergy) made the decision to shut down the plant based on the results of troubleshooting performed on the RHR A pump. Grand Gulf Nuclear Station initiated plant shutdown required by Technical Specifications 3.5.1, 3.6.1.7, and 3.6.2.3 at 1200 hours CDT on August 29, 2017, due to expected restoration of RHR A exceeding the TS completion time of 7 days prior to restoring Operability. The shutdown was completed and entry into MODE 3 occurred at 2217 hours CDT on August 29, 2017.

REPORTABILITY

Entergy completed Event Notification 52936 notifying the Nuclear Regulatory Commission of the commencement of a plant shutdown in accordance with 10CFR50.72(b)(2)(i), due to the anticipated inability to complete the required A RHR Pump repairs prior to exceeding the TS LCO time limits.

The completion of the shutdown reported in Event Notification 52936 is reportable in accordance with 10CFR50.73(a)(2)(i)(A), the completion of any nuclear plant shutdown required by the plant's Technical Specifications. LCOs not met:

- 1) TS 3.5.1 for one low pressure ECCS [BO] injection/spray subsystem.
- 2) TS 3.6.1.7 for one RHR containment spray subsystem, and
- 3) TS 3.6.2.3 for one RHR suppression pool cooling subsystem.

CAUSE

The A RHR pump TS differential pressure was out of specification (low) and could not be returned to acceptable limits prior to exceeding the 7 day limiting condition for operation time.

The A RHR pump was shipped to a vendor for the determination of the cause of the A RHR pump being out of specification limits. This causal analysis is not anticipated to be completed prior to the 60 day report time for this licensee event report (LER). This LER will be supplemented upon completion of the causal analysis.

CORRECTIVE ACTIONS

Replacement of the A RHR pump.
Successful retesting of the A RHR pump and restoration of the pump to operable status.

NRC FORM
(4-2017)

366A U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 3/31/2020



LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

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NARRATIVE

SAFETY SIGNIFICANCE

The event posed no threat to the health and safety of the general public or to nuclear safety as safety-systems performed as designed. No Technical Specification safety limits were violated. Industrial safety was not challenged, and there was no potential or actual radiological release during the event.

PREVIOUS SIMILAR OCCURRENCES

LER 2004-002-00, Loss of RHR B Operability

LER 2016-007-01, Technical Specification Shutdown because of the Loss of the Residual Heat Removal Pump

The causes and corrective actions associated with these previous similar events was reviewed and it is believed that the corrective actions could not have prevented the cause of this event.