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GNRO-2017/00026

April 25, 2017

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

SUBJECT: Licensee Event Report LER 2017-002-00, Loss of Secondary Containment  
and Inoperability of the Standby Gas Treatment System  
Grand Gulf Nuclear Station, Unit 1  
Docket No. 50-416  
Renewed License No. NPF-29

Dear Sir or Madam:

Attached is Licensee Event Report LER 2017-002-00, Loss of Secondary Containment and Inoperability of the Standby Gas Treatment System. This report is being submitted in accordance with Title 10 Code of Federal Regulations 50.73(a)(2)(v)(C).

This letter contains no new commitments. If you have any questions or require additional information, please contact James Nadeau at 601-437-2103.

Sincerely,

A handwritten signature in cursive script that reads "James Nadeau".

JJN/ram


Attachment: Licensee Event Report (LER) 2017-002-00

cc: see next page

U.S. Nuclear Regulatory Commission  
ATTN: Mr. Siva Lingam, NRR/DORL (w/2)  
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

<b>NRC FORM 366</b> (04-2017)		<b>U.S. NUCLEAR REGULATORY COMMISSION</b>		APPROVED BY OMB: NO. 3150-0104      EXPIRES: 10/31/2020  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 <a href="mailto:Infocollects.Resource@nrc.gov">Infocollects.Resource@nrc.gov</a> , 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>LICENSEE EVENT REPORT (LER)</b> (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 <a href="http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/">http://www.nrc.gov/reading-rm/doc-collections/nuregs/staff/sr1022/r3/</a> )										
<b>1. FACILITY NAME</b> Grand Gulf Nuclear Station, Unit 1		<b>2. DOCKET NUMBER</b> 05000 416		<b>3. PAGE</b> 1 OF 3						
<b>4. TITLE</b> Loss of Secondary Containment and Inoperability of the Standby Gas Treatment Systems.										
<b>5. EVENT DATE</b>			<b>6. LER NUMBER</b>			<b>7. REPORT DATE</b>		<b>8. OTHER FACILITIES INVOLVED</b>		
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REV NO.	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
2	28	2017	2017 - 002 - 00			04	25	2017	N/A	05000 N/A
<b>11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)</b>										
<b>9. OPERATING MODE</b>  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)	
<b>10. POWER LEVEL</b>  100			<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 checked="" 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			
<b>12. LICENSEE CONTACT FOR THIS LER</b>										
FACILITY NAME James Nadeau / Manager, Regulatory Assurance								TELEPHONE NUMBER (Include Area Code) (601) 437-2103		
<b>13. COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT</b>										
CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	CAUSE	SYSTEM	COMPONENT	MANU-FACTURER	REPORTABLE TO EPIX	
X	NG			N	N/A	N/A	N/A	N/A	N/A	
<b>14. SUPPLEMENTAL REPORT EXPECTED</b>						<b>15. EXPECTED SUBMISSION DATE</b>		MONTH	DAY	YEAR
<input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO								9	29	2017
ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)										
<p>On March 24, 2017, it was determined that the A Standby Gas Treatment System (SGTS A) was not operating as expected. The investigation into the event revealed the Single Nest Power Supply had failed resulting in loss of flow control. It was determined the power supply had been replaced and the technical specification limiting condition for operation exited on February 23, 2017. The A SGTS was not run between replacement of the power supply and the time of discovery condition on March 24, 2017. Additionally, the B SGTS was removed from service for planned corrective and preventative maintenance on February 28, 2017 and returned to service on March 3, 2017. This condition is reportable as a loss of safety function in accordance with 10 CFR 50.73(a)(2)(v)(C) for the time period both the A and B SGTSs were inoperable. The condition is also reportable as a condition prohibited by technical specifications in accordance with 10 CFR 50.73(a)(2)(i)(B) for the A SGTS train being inoperable for a period great than allowed by technical specifications. The cause of this event has been determined to be within the control system of the Single Nest Power Supply. Investigation into the specific cause continues and this licensee event report will be update. Corrective actions included the replacement and testing of the power supply with the initiation of a causal investigation. There were no actual nuclear safety consequences or radiological consequences. No Technical Specification Safety Limits were violated.</p>										

NRC FORM  
(6-2016)

366A U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104

EXPIRES: 3/31/2020



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	2. DOCKET	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV. NO.
Grand Gulf Nuclear Station, Unit 1	05000 416			
		2017 - 002 - 00		

**NARRATIVE**

**DESCRIPTION**

On March 24, 2017, while operating the A Standby Gas Treatment System (SGTS A) the SGTS Flow Recorder was indicated a downscale reading. The Plant Data System computer points indicated a flow mismatch between the available indications of approximately 5000 cubic feet per minute (CFM). Due to the mismatch indications and the downscale reading the surveillance was terminated and Standby Gas "A" was returned to standby.

The investigation of the identified conditions determined the failure of the systems was the Single Nest Power Supply. Failure of this power supply would result in a loss of the associated train's flow control. The investigation revealed that the power supply was replaced and the technical specification limiting condition for operation exited on February 23, 2017. The A SGTS was not run between replacement of the power supply and the time of discovery condition on March 24, 2017.

Prior to the power supply being replaced the system had been successfully tested and therefore it was determined that this condition could only have been present since the installation of the new Power Supply was completed on February 23, 2017.

The investigation further revealed that the B SGTS was removed from service for planned corrective and preventative maintenance on February 28, 2017 and returned to service on March 3, 2017.

The above described condition rendered the A SGTS inoperable and also resulted in a period when both SGTSs were inoperable during the same time period.

**REPORTABILITY**

This condition is reportable as a loss of safety function in accordance with 10 CFR 50.73(a)(2)(v)(C) for the time period both the A and B SGTSs were inoperable.

The condition is also reportable as a condition prohibited by technical specifications in accordance with 10 CFR 50.73(a)(2)(i)(B) for the A SGTS train being inoperable for a period great than allowed by technical specifications.

**CAUSE**

The cause of this event has been determined to be within the control system of the Single Nest Power Supply. Investigation into the specific cause continues and this licensee event report will supplemented upon completion of the causal analysis.

NRC FORM  
(6-2016)

366A U.S. NUCLEAR REGULATORY COMMISSION

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Grand Gulf Nuclear Station, Unit 1	05000 416			
		2017 - 002 - 00		

**NARRATIVE**

**CORRECTIVE ACTIONS**

The defective power supply was replaced and tested satisfactory.

The event was entered into the Grand Gulf Nuclear Station corrective action program and a causal investigation was initiated.

**SAFETY SIGNIFICANCE**

There were no actual nuclear safety consequences or radiological consequences as a result of this power supply failure. No Technical Specification Safety Limits were violated.

**PREVIOUSLY SIMILAR EVENTS**

LER 2015-002-00 Loss of Secondary Containment Differential Pressure During Drawdown Testing

LER 2015-003-00 Technical Specification Surveillance on Primary Containment Isolation Valves

LER 2016-003-00 Loss of Secondary Containment Safety Function During Routine Roof Inspection

The identified licensee event reports were reviewed and it has been determined that the causes and corrective actions for the previously identified events were sufficiently different that they could not have predicted or prevented the occurrence of this event.