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GNRO-2015/00084

November 25, 2015

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

SUBJECT: Licensee Event Report (LER) 2015-002-00 Loss of Secondary Containment
Differential Pressure during Drawdown Testing
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

Dear Sir or Madam:

Attached is Licensee Event Report (LER) 2015-002-00, Loss of Secondary Containment Differential Pressure during Drawdown Testing, which is a final report. This report is submitted in accordance with Title 10 Code of Federal Regulations 50.73(a)(2)(v)(C).

This letter contains no new commitments. Should 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 "J. Nadeau".

JJN/tmc

Attachment: Licensee Event Report (LER) 2015-002-00

cc: (See Next Page)

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

U.S. Nuclear Regulatory Commission
ATTN: Mr. Marc Dapas (w/2)
Regional Administrator, Region IV
1600 East Lamar Boulevard
Arlington, TX 76011-4511

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

**Attachment to
GNRO-2015/00084**

Licensee Event Report (LER) 2015-002-00

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: 80 hours. Reported lessons learned are incorporated into the licensing process and fed back to industry. Send comments regarding burden estimate to the FOIA/Privacy Section (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet 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
Loss of Secondary Containment Differential Pressure during Drawdown Testing

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
10	01	2015	2015 - 002 - 00			11	30	2015	N/A	05000 N/A
									FACILITY NAME	DOCKET NUMBER
									N/A	05000 N/A

9. OPERATING MODE 1	11. THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check all that apply)									
	<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)						
10. POWER LEVEL 100	<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 checked="" type="checkbox"/> 50.73(a)(2)(v)(C)	<input type="checkbox"/> OTHER						
	<input type="checkbox"/> 20.2203(a)(2)(vi)	<input 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 Nadeau / 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	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

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 N/A	DAY N/A	YEAR N/A
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On October 1, 2015, at approximately 0324 hours with the plant in MODE 1 at 100 percent rated core thermal power, Grand Gulf Nuclear Station experienced a loss of Secondary Containment. Grand Gulf Nuclear Station failed to meet the requirements of Technical Specification Surveillance 3.6.4.1.3 in the tested configuration. Following completion of the failed surveillance test, Secondary Containment was returned to an operable status at 0440 hours on October 1, 2015, by returning the system to a previously known operable configuration. The cause of the October 1, 2015 failed drawdown test was Secondary Containment door seal inleakage during testing. After the leaking Secondary Containment door seals were repaired, a subsequent Standby Gas Treatment drawdown surveillance test was performed. The test was completed with satisfactory results on October 6, 2015, for the previously failed configuration. There was no actual impact to public health and safety due to this event.

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A. Initial Conditions

At the time of the event, Grand Gulf Nuclear Station (GGNS) Unit 1 was operating in MODE 1 at 100 percent rated core thermal power. There were no systems, structures, or components that were inoperable at the start of the event that contributed to the event.

B. Description of Event

On October 1, 2015, Standby Gas Treatment System (SGTS)[BH] B failed Technical Specification (TS) Surveillance Requirement (SR) 3.6.4.1.3. This surveillance procedure requires the SGTS B train to drawdown Secondary Containment [NG] to ≥ 0.311 inches of vacuum water gauge at 180 seconds and maintain that pressure with the SGTS B Filter Train flow rate not exceeding 4000 cfm for the duration of the surveillance (1 hour). The configuration being tested involved opening inner doors to test the boundary created by the outer doors. Standby Gas Treatment System B was able to drawdown Secondary Containment to ≥ 0.311 inches of vacuum water gauge in 60.6 seconds, steady state. The vacuum reading at 180 seconds, during the short term transient period of testing when fans and dampers were modulating, was 0.25 inches of vacuum water gauge. The rest of the steady state test readings were greater than 0.41 inches of vacuum water gauge with the average surveillance reading being 0.43 inches of vacuum water gauge. The filter train flow was at 3850 cfm for the length of the surveillance

Secondary Containment boundary was immediately returned to a previously known operable configuration to maintain Secondary Containment integrity after the configuration tested during the October 1, 2015 surveillance failed. Troubleshooting performed by Maintenance between October 1, 2015 and October 5, 2015 identified and documented there was inleakage through four Secondary Containment isolation doors. After three of the door seals were replaced, TS SR 3.6.4.1.3 was performed for the configuration being tested, which previously failed, and passed with satisfactory results.

C. Extent of Condition

In the past 3 years, it was documented in three separate condition reports the drawdown surveillance testing failed to meet the requirements of TS SR 3.6.4.1.3. These events are also being reported under this Licensee Event Report (LER). The following events were not reported prior to this LER because they were not previously identified as a loss of safety function. The conditions are as follows:

1. June 17, 2014: During SGTS B drawdown testing, the required vacuum criteria at 180 seconds after initiation was not met as required by the surveillance (all other vacuum readings were satisfactory). The cause was determined to be inleakage through the 166' Elevation Railbay Floor Plugs. Railbay floor plugs were repaired and the retest was performed with satisfactory results.
2. October 31, 2014: During SGTS A drawdown testing, the required vacuum criteria at 180 seconds after initiation was not met as required by the surveillance (all other vacuum readings were satisfactory). The cause was determined to be inleakage through a Railbay Door. The Railbay door was repaired and the retest was performed with satisfactory results.

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3. August 2, 2015: During SGTS A drawdown testing, the first 10 minute interval of data taken did not pass the ≥ 0.311 inches of vacuum water gauge criteria as required by the surveillance (all other vacuum readings were satisfactory). The cause was determined to be inleakage through two door seals. Both door seals were repaired and the retest was performed with satisfactory results.

During these tests, the drawdown testing requirements of TS SR 3.6.4.1.3 were not met for the configuration being tested, rendering Secondary Containment inoperable during the testing. Immediately after the failed tests, the system was placed in a previously known operable configuration and the identified inleakage was corrected. All retests performed after inleakage corrections for the configuration being tested, which previously failed, were passed with satisfactory results.

D. Event Cause

The cumulative inleakage through four secondary containment door seals was the cause of the reduced vacuum in the Enclosure Building.

E. Corrective Actions

To correct for the inleakage through the secondary containment doors during the surveillance testing, three of the leaking door seals were replaced. Upon replacement of the door seal, the surveillance was performed with satisfactory results.

F. Safety Significance

F.1 Nuclear Safety

There were no actual nuclear safety consequences related to this event.

F.2 Radiological Safety

There was no radiological consequence during this event.

The potential for a radiological consequence occurred on October 1, 2015 between 0324 hours and 0440 hours, approximately 116 minutes. There was no abnormal release during this time; therefore, no radiological consequences occurred.

F.3 Industrial Safety

This event did not have any actual or potential impacts on industrial safety.

G. Basis of Reportability

This LER is being submitted pursuant to Title 10 Code of Federal Regulations (10 CFR) 50.73(a)(2)(v)(C) for an event or condition that could have prevented the fulfillment of the safety function of structures or systems that are needed to: (C) control the release of radioactive material. Telephonic notification was made to the U.S Nuclear Regulatory Commission (NRC) Emergency Notification System (ENS) on October 7, 2015, pursuant to 10 CFR 50.72(b)(3)(v)(C).