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Eric A. Larson  
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10CFR50.73

GNRO-2018/00026

May 25, 2018

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

SUBJECT: Licensee Event Report 2018-005-00, Secondary Containment Door  
Misaligned, Due to Inadequate Criteria, Could Have Prevented Fulfillment  
of a Safety Function  
Grand Gulf Nuclear Station, Unit 1  
Docket No. 50-416  
License No. NPF-29

Dear Sir or Madam:

Attached is Licensee Event Report 2018-005-00. This report is being submitted in accordance with 10CFR50.73(a)(2)(v)(C) as an event or condition that could have prevented fulfillment of a safety function.

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

Sincerely,

A handwritten signature in black ink, appearing to read "E. A. Larson".

Eric A. Larson  
Site Vice President  
Grand Gulf Nuclear Station  
EAL/jw

Attachment: Licensee Event Report 2018-005-00

cc: see next page

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

U.S. Nuclear Regulatory Commission  
ATTN: Ms. Lisa M. Regner  
Mail Stop OWFN 8 B1  
Rockville, MD 20852-2738

U.S. Nuclear Regulatory Commission  
ATTN: Mr. Kriss Kennedy, NRR/DORL (w2)  
Regional Administrator, Region IV  
1600 East Lamar Boulevard  
Arlington, TX 76011-4511

GNRO-2018/00026

Attachment

Licensee Event Report 2018-005-00



**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](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.

<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
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**4. Title**  
Secondary Containment Door Misaligned, Due to Inadequate Criteria, Could Have Prevented Fulfillment of a Safety Function

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
03	30	2018	2018	- 005	- 00	05	25	2018	N/A	05000N/A
									Facility Name	Docket Number
									N/A	05000N/A

<b>9. Operating Mode</b>  1	<b>11. This Report is Submitted Pursuant to the Requirements of 10 CFR §: (Check all that apply)</b>											
	<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)		
<b>10. Power Level</b>  100	<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)		
	<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)(ii)		
	<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)(iii)		
										<input type="checkbox"/> Other (Specify in Abstract below or in NRC Form 366A)		

**12. Licensee Contact for this LER**

Licensee Contact 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 ICES	Cause	System	Component	Manufacturer	Reportable To ICES
D	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

<b>14. Supplemental Report Expected</b> <input type="checkbox"/> Yes (If yes, complete 15. Expected Submission Date) <input checked="" type="checkbox"/> No	<b>15. Expected Submission Date</b>	Month	Day	Year
		N/A	N/A	N/A

Abstract (Limit to 1400 spaces, i.e., approximately 14 single-spaced typewritten lines)

On March 31, 2018, at approximately 0200, Grand Gulf Nuclear Station (GGNS) Operations personnel performed Technical Specification Surveillance Requirement (SR) 3.6.4.1.4, Secondary Containment Drawdown. During the surveillance, secondary containment pressure was unable to be maintained, as required by SR 3.6.4.1.4, and Operators in the field identified air leakage from the Auxiliary Building Rail Bay Door. The door had been operated the previous day by supplemental personnel, who improperly seated the door, causing excessive air flow across the seals.

The cause of the door misalignment was a lack of criteria for determining proper door seating. The procedure has a step to inspect the door for misalignment; however, there are no match marks or quantitative metrics to compare the performance against a standard. Corrective actions include restoring door alignment and satisfactorily performing the previously failed surveillance. In addition, match marks or alignment aids will be added to the door, and referenced in the relevant procedures.

Engineering analyzed the results of the failed Surveillance, and determined that the GGNS dose analysis would have been preserved and the Secondary Containment safety function would have still been met. In addition, no other component or system failures contributed to this event.



**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		
		YEAR	SEQUENTIAL NUMBER	REV NO.
Grand Gulf Nuclear Station, Unit 1	05000-416	2018	- 005	- 00

**NARRATIVE**

**A. PLANT CONDITIONS PRIOR TO THE EVENT**

100 percent reactor power with no inoperable structures, components, or safety systems contributing to the event.

**B. DESCRIPTION**

On March 30, 2018, at approximately 1500, after staging material in the Auxiliary Building Rail Bay, supplemental personnel closed the Auxiliary Building Rail Bay rollup door [DR] using the installed winches in accordance with the governing procedure. Peer checks, place keeping, and Refuel Services supervisor oversight at the work area were utilized. The door seals were verified to be in satisfactory condition and no obstructions were present on the floor sealing surface. In addition, Security personnel verified that no light was coming under the door, as an additional precaution.

On March 31, 2018, at approximately 0200, Operations personnel performed Technical Specification Surveillance Requirement 3.6.4.1.4, Secondary Containment [NG] Drawdown. During the surveillance, secondary containment pressure was unable to be maintained, as required by SR 3.6.4.1.4, and Operators in the field identified air leakage from the Auxiliary Building Rail Bay Door. The test was secured, Secondary Containment was declared INOPERABLE, and Technical Specification Condition 3.6.1.4 A was entered at 0206. Secondary Containment was returned to an operable status by returning the system to a previously known operable configuration, with the relevant floor blocks and internal personnel doors as the Secondary Containment boundary. The Limiting Condition for Operation was declared met at 0344.

After multiple attempts and the use of more experienced personnel, the door was properly seated. The experienced maintenance personnel had an understanding of how to seat the door that was not reflected in the procedure. The Secondary Containment Drawdown Surveillance was satisfactorily performed, at 1615, on April 1, 2018.

**C. REPORTABILITY**

This event is being reported under 10 CFR 50.73(a)(2)(v)(C), as an event or condition that could have prevented fulfillment of a safety function of structures or systems that are needed to control the release of radioactive material. This event was initially reported under 10 CFR 50.72(b)(3)(v)(C) on March 31, 2018, via Event Report 53304.

**D. CAUSE**

The cause of the door misalignment was a lack of criteria for determining proper door seating. Even though the procedure has a step to inspect the door for misalignment, there are no match marks or quantitative metrics to compare the performance against a standard.

**E. CORRECTIVE ACTIONS**

The following actions are completed or planned.

Completed:

- Secondary Containment was returned to an operable status by returning the system to a previously known operable configuration.



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

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		YEAR	SEQUENTIAL NUMBER	REV NO.
Grand Gulf Nuclear Station, Unit 1	05000-416	2018	- 005	- 00

**NARRATIVE**

- Auxiliary Rail Bay Door alignment was restored, and the Secondary Containment Drawdown Surveillance was satisfactorily performed.

Planned actions included in the corrective action program which may be changed in accordance with the program:

- Match marks or alignment aids will be added to the door, and referenced in the relevant procedures.

**F. SAFETY SIGNIFICANCE**

No radiological event occurred during the potential loss of Secondary Containment; therefore, no actual consequences existed. In addition, a Grand Gulf Nuclear Station (GGNS) specific wind tunnel test (Colorado wind tunnel tests) has demonstrated that a pressure in Secondary Containment greater than three times the result of the UNSAT Secondary Containment Drawdown Surveillance would still be sufficient to prevent leakage of Secondary Containment atmosphere to the outside atmosphere. Thus, during a radiological event in this condition, exfiltration would not have occurred, The GGNS Dose Analysis would have been preserved, and the Secondary Containment safety function would have been met. Therefore, no actual or potential safety consequences existed during this event.

Entergy has evaluated this event/condition and determined that it did not result in an actual loss of safety function. Therefore, in accordance with the guidance provided in NEI 99-02, Revision 7, Regulatory Assessment Performance Indicator Guideline, Section 2.2, Mitigating Systems Cornerstone, Sub-Section, Safety System Functional Failures, Page 30, Lines 27 through 30; this condition will not be counted as a safety system functional failure against Performance Indicator MSO5, Safety System Functional Failures.

**G. PREVIOUS SIMILAR OCCURRENCES**

Over the past three years, there have been two instances where air flow around the Auxiliary Rail Bay Door was identified, one on December 12, 2017, and one on February 5, 2018. On December 12, 2017, the door was subsequently found slightly misaligned, and on February 5, 2018, no cause was identified. Neither of these instances resulted in a failed Surveillance or Inoperable Secondary Containment.