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GNRO-2016/00041

August 22, 2016

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

SUBJECT: Licensee Event Report (LER) 2016-005-00, Automatic Reactor SCRAM
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

Dear Sir or Madam:

Attached is Licensee Event Report (LER) 2016-005-00, which will be supplemented upon completion of the in-progress root cause evaluation. This report is submitted in accordance with Title 10 Code of Federal Regulations 50.73(a)(2)(iv)(A).

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

Sincerely,

JJN/ras

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

Attachment: Licensee Event Report (LER) 2016-005-00

cc: see next page

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

Attachment To

GNRO-2016/00041

Licensee Event Report (LER) 2016-005-00



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
Automatic Reactor SCRAM

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
06	25	2016	2016	- 005	- 00	08	22	2016	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)			
10. POWER LEVEL 99	<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)
	<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 checked="" 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 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
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED <input checked="" type="checkbox"/> YES (If yes, complete 15. EXPECTED SUBMISSION DATE) <input type="checkbox"/> NO	15. EXPECTED SUBMISSION DATE MONTH: 10, DAY: 21, YEAR: 2016
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ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-spaced typewritten lines)

On June 25, 2016, at 1407 Central Daylight Time, Grand Gulf Nuclear Station was operating in Mode 1 at approximately 98.75 percent rated thermal power, performing final power ascension to 100% power with Reactor Recirculation Flow Control Valves, when an unplanned automatic reactor SCRAM occurred. All safety systems responded per design. Two Safety Relief Valves opened at the onset of the event to control reactor pressure and reseated properly. All control rods inserted when the signals generated by the Reactor Protection System were received. There were no Emergency Core Cooling System actuations. The shift immediately entered the appropriate Off Normal Event Procedures. The plant was stabilized with pressure control on the main turbine bypass valves and level control on the start-up level control valve. The cause of the event is under investigation by a root cause evaluation team and will be provided in a supplemental report. There were no actual nuclear safety consequences or radiological consequences during the event.

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 and Information Collections Branch (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.



LICENSEE EVENT REPORT (LER)
CONTINUATION SHEET

1. FACILITY NAME	2. DOCKET	3. LER NUMBER		
		YEAR	SEQUENTIAL NUMBER	REV. NO.
Grand Gulf Nuclear Station, Unit 1	05000 416	2016	005	00

NARRATIVE

A. PLANT OPERATING CONDITIONS BEFORE THE EVENT

At the time of the event, Grand Gulf Nuclear Station (GGNS) Unit 1 was in Mode 1 and ascending in power at approximately 99 percent (%) rated thermal power (RTP). All systems, structures and components (SSCs) that were necessary to mitigate, reduce the consequences of, or limit the safety implications of the event were available. No inoperable SSCs at the start of the event contributed to the event.

B. DESCRIPTION OF OCCURRENCE

On June 25, 2016, at 14:07 hours, during power ascension while at approximately 99% RTP, Turbine Control Valve (TCV) 'B' initiated a Fast Closure followed by TCV 'D' Fast Closure followed by TCV 'C' Fast Closure resulting in actuation of Reactor Protection System (RPS) Divisions 'A' and 'B' causing an automatic full SCRAM signal. All Control Rods fully inserted as required. Reactor power lowered resulting in Generator Power Differential causing a Main Generator Trip.

Reactor Pressure High signal was received and actuated Safety Relief Valves (SRVs) 1B21F051D and 1B21F051B. Both SRVs opened once and re-closed approximately 27 seconds later. No other SRVs actuated and Low-Low Set functioned properly.

Control room personnel entered the appropriate Off Normal Event and Emergency Procedures. The Feedwater Level Control System responded as designed. Reactor level initially lowered below the Level 3 scram setpoint as a result of void collapse and then rapidly rose as feedwater injected. Level stabilized without reaching the Level 8 feedwater trip setpoint. Reactor water level was transferred to startup level control mode. RPS was reset with reactor water level stable on Startup Level Control and reactor pressure stable on Pressure Reference. No Emergency Core Cooling System (ECCS) initiations and no unexpected group isolations occurred as a result of the transient.

C. REPORTABLE OCCURRENCE

This Licensee Event Report (LER) is being submitted pursuant to Title 10 Code of Federal Regulations (10 CFR) 50.73(a)(2)(iv)(A) for an automatic actuation of the reactor protection system (RPS). Telephonic notification was made to the U.S. Nuclear Regulatory Commission (NRC) Emergency Notification System on June 25, 2016, within 4 hours of the event pursuant to 10 CFR 50.72(b)(2)(iv)(B) and 10 CFR 50.72 (b)(3)(iv)(A) for a valid RPS actuation while the reactor was critical.

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 and Information Collections Branch (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.



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Grand Gulf Nuclear Station, Unit 1	05000 416	YEAR	SEQUENTIAL NUMBER	REV. NO.
		2016	- 005	- 00

NARRATIVE

D. CAUSE

Investigation of the root cause is ongoing. A supplemental report to this LER will be provided upon completion of the root cause investigation.

E. CORRECTIVE ACTIONS

Immediate:

Tested and replaced the two suspect Main Turbine Control Valve circuit cards

Pending Action:

An RCE team is currently working to identify additional corrective actions. This LER will be supplemented when the corrective action(s) to preclude recurrence is/are determined.

F. SAFETY ASSESSMENT

There were no actual nuclear safety consequences or radiological consequences during the event as all systems operated as designed and there was no release of radioactivity.

G. PREVIOUS SIMILAR EVENTS

Previous events or conditions that involved the same underlying concern or reason as this event (i.e. same root cause, failure, or sequence of events) will be documented in the supplemental report when the RCE is finalized.