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GNRO-2013/00055

October 3, 2013

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

SUBJECT: Licensee Event Report 2013-004-00 Operation prohibited by Technical Specifications due to inadvertent bypass of Reactor Steam Dome High Pressure Interlock for Residual Heat Removal System isolation
Grand Gulf Nuclear Station, Unit 1
Docket No. 50-416
License No. NPF-29

Dear Sir or Madam:

Attached is Licensee Event Report 2013-004-00, which is a final report. This report is submitted in accordance with Title 10 *Code of Federal Regulations* 50.73(a)(2)(i)(B).

This letter contains no new commitments. If you have any questions or require additional information, please contact Mr. Christopher R. Robinson at (601) 437-7326.

Sincerely,

MLR/jas

Attachment: Licensee Event Report (LER) 2013-004-00

cc: (see next page)

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

U. S. Nuclear Regulatory Commission
ATTN: Mr. Alan Wang, NRR/DORL
Mail Stop OWFN/8 B1
Washington, DC 20555-0001

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

NRC FORM 366 (10-2010) U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0104 EXPIRES: 10/31/2013

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.

LICENSEE EVENT REPORT (LER)

(See reverse for required number of digits/characters for each block)

1. FACILITY NAME	2. DOCKET NUMBER	3. PAGE
Grand Gulf Nuclear Station, Unit 1	**05000** 416	1 OF 3

4. TITLE

Operation prohibited by Technical Specifications due to inadvertent bypass of Reactor Steam Dome High Pressure Interlock for Residual Heat Removal System isolation.

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 N/A	N/A
08	06	2013	2013-004-00			10	3	2013	N/A	N/A

9. OPERATING MODE

1

10. POWER LEVEL

93.5

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

☐ 20.2201(b)	☐ 20.2203(a)(3)(i)	☐ 50.73(a)(2)(i)(C)	☐ 50.73(a)(2)(vii)
☐ 20.2201(d)	☐ 20.2203(a)(3)(ii)	☐ 50.73(a)(2)(ii)(A)	☐ 50.73(a)(2)(viii)(A)
☐ 20.2203(a)(1)	☐ 20.2203(a)(4)	☐ 50.73(a)(2)(ii)(B)	☐ 50.73(a)(2)(viii)(B)
☐ 20.2203(a)(2)(i)	☐ 50.36(c)(1)(i)(A)	☐ 50.73(a)(2)(iii)	☐ 50.73(a)(2)(ix)(A)
☐ 20.2203(a)(2)(ii)	☐ 50.36(c)(1)(ii)(A)	☐ 50.73(a)(2)(iv)(A)	☐ 50.73(a)(2)(x)
☐ 20.2203(a)(2)(iii)	☐ 50.36(c)(2)	☐ 50.73(a)(2)(v)(A)	☐ 73.71(a)(4)
☐ 20.2203(a)(2)(iv)	☐ 50.46(a)(3)(ii)	☐ 50.73(a)(2)(v)(B)	☐ 73.71(a)(5)
☐ 20.2203(a)(2)(v)	☐ 50.73(a)(2)(i)(A)	☐ 50.73(a)(2)(v)(C)	☐ OTHER
☐ 20.2203(a)(2)(vi)	☒ 50.73(a)(2)(i)(B)	☐ 50.73(a)(2)(v)(D)	Specify in Abstract below or in NRC Form 366A

12. LICENSEE CONTACT FOR THIS LER

FACILITY NAME	TELEPHONE NUMBER *(Include Area Code)*
Christopher R. Robinson / Manager, Licensing	(601) 437-7326

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
D	JE	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A

14. SUPPLEMENTAL REPORT EXPECTED

☐ YES *(If yes, complete 15. EXPECTED SUBMISSION DATE)* ☒ NO

15. EXPECTED SUBMISSION DATE

MONTH	DAY	YEAR
N/A	N/A	N/A

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

On August 6, 2013, at 10:15 Central Daylight Time (CDT) with the unit in Mode 1 at 93.5 percent thermal power, Grand Gulf Nuclear Station (GGNS) discovered that it was not in compliance with Technical Specification (TS) 3.3.6.1, Primary Containment and Drywell Isolation Instrumentation. Function 5.c, Reactor Steam Dome High Pressure Isolation of the Residual Heat Removal (RHR) system, was inoperable due to the jumpers that disable the function not being removed prior to startup. Upon discovery GGNS entered TS 3.3.6.1 Limiting Condition of Operation (LCO) Actions A.1, B.1, C.1, F.1 and H.1. Also, TS LCO 3.0.4 was not satisfied. At 11:11 CDT the jumpers were removed making the reactor steam dome high pressure isolation function Operable and the LCO actions were exited.

The cause of the event was a lack of Integrated Operating Instruction (IOI) 03-1-01-3, Cold Shutdown to Generator Carrying Minimum Load, to include the requirements of EN-DC-136, Temporary Modifications, for adequate procedural control of temporary modifications. Additionally, a failure of the Shift Manager (SM) to initiate a potential TS Limiting Condition for Operation Tracking Record (LCOTR) as required by procedure 02-S-01-17, Control of Limiting Conditions for Operation was identified as a contributing cause.

The event posed no threat to public health and safety. This interlock is provided only for equipment protection to prevent an intersystem loss of coolant accident (LOCA) scenario. Credit for the interlock is not assumed in the accident or transient analysis sections of the Updated Final Safety Analysis Report (UFSAR).

1. FACILITY NAME	2. DOCKET	6. LER NUMBER			3. PAGE
		YEAR	SEQUENTIAL NUMBER	REV. NO.	
Grand Gulf Nuclear Station, Unit 1	05000 416	2013 – 004 -- 00			2 OF 3

NARRATIVE

A. REPORTABLE OCCURRENCE

This Licensee Event Report (LER) is being submitted pursuant to *10 CFR* 50.73(a)(2)(i)(B) for operation or condition which was prohibited by the plant's Technical Specifications.

B. INITIAL CONDITIONS

At the time of the event the reactor was in Mode 1 with reactor power at 93.5 percent. There were no inoperable structures, systems, or components that contributed to this event.

C. DESCRIPTION OF OCCURRENCE

On August 3, 2013, at 03:04 Central Daylight Time (CDT) Grand Gulf Nuclear Station (GGNS) entered Mode 2 (Startup) from Mode 4 (Cold Shutdown). Subsequently, GGNS entered Mode 1 on August 4, 2013, at 05:31. On August 6, 2013, at 10:15 with the unit in Mode 1 at 93.5 percent thermal power, during a supervisory review of procedures in progress, GGNS discovered that it was not in compliance with Technical Specification (TS) 3.3.6.1, Primary Containment and Drywell Isolation Instrumentation, (EIIS:JE) due to the jumpers that disable the function not being removed prior to startup. Upon discovery, GGNS entered TS 3.3.6.1 Limiting Condition for Operation (LCO) Actions A.1, B.1, C.1, F.1 and H.1. Also, TS LCO 3.0.4 was not satisfied. This condition existed until 11:11 CDT on August 6, 2013, when the jumpers were removed.

D. CAUSE

The cause of the event was a lack of Integrated Operating Instruction (IOI) 03-1-01-3, Cold Shutdown to Generator Carrying Minimum Load, to include the requirements of EN-DC-136, Temporary Modifications, for adequate procedural control of temporary modifications. Additionally, a failure of the Shift Manager (SM) to initiate a potential TS Limiting Condition for Operation Tracking Record (LCOTR) as required by procedure 02-S-01-17, Control of Limiting Conditions for Operation was identified as a contributing cause.

E. CORRECTIVE ACTIONS

To correct the condition that caused this event, the jumpers were removed restoring the function to an Operable status. A prompt investigation of the issue was performed. A review of IOI 03-1-01-3 and 03-1-01-4, Scram Recovery, was performed. The review included a walkdown of procedurally referenced jumper locations which verified no other configuration control issues existed due to steps not completed. IOI 03-1-01-1 was revised to require verification that the affected jumpers were removed prior to entering Mode 2 and that all applicable IOI 03-1-01-3 steps were completed prior to entering Mode 2. GGNS expectations on the requirements of EN-OP-115, Log Keeping, were revised to provide clarity of the requirements. An action to review all IOIs to ensure proper ties exist for transitioning between them, as well as incorporating necessary temporary modification tracking, is currently in progress. An apparent cause evaluation (ACE) is being performed.

NARRATIVE

F. SAFETY ASSESSMENT

From Technical Specification 3.3.6.1 Bases Safety Analyses: Function 5.c. Reactor Steam Dome Pressure-High. The Shutdown Cooling System Reactor Steam Dome Pressure-High Function is provided to isolate the shutdown cooling portion of the RHR System. This interlock is provided only for equipment protection to prevent an intersystem Loss Of Coolant Accident (LOCA) scenario and credit for the interlock is not assumed in the accident or transient analysis in the Updated Final Safety Analysis Report (UFSAR).

The event posed no threat to public health and safety as this interlock is provided only for equipment protection to prevent an intersystem LOCA scenario and credit for the interlock is not assumed in the accident or transient analysis in the updated final safety analysis report (UFSAR). The RHR system isolation valves were able to be remotely opened if needed for post-LOCA shutdown cooling operations.

Immediate actions performed by the Operations staff were adequate and appropriate. The actions included:

1) Review of IOI 03-1-01-1, Cold Shutdown to Generator Carrying Minimum Load, 03-1-01-2, Power Operations, 03-1-01-3 Plant Shutdown, and 03-1-01-4, Scram Recovery, from forced outage FO-19-5 for jumper configuration items.

2) Verification (through plant walkdowns) that the jumpers are in proper configuration.

3) Performance of 100 percent peer reviews of all procedure and surveillances turned into the control room supervisor (CRS) for review for 7 days. This included both completed and in-progress (at that time) procedures/surveillances.

4) Operations Management implemented guidance to require assistant operations manager (AOM) review and approval prior to transitioning from one IOI to another with incomplete steps.

During the event, no Technical Specification defined Safety Limits were challenged.

Radiological Safety was not affected as there was no radiological release to the public during the event.

Response of the crew did not challenge established industrial safety protocol or requirements. There was no impact to the health and safety of the public, industrial safety or radiological safety as a result of this event.

G. ADDITIONAL INFORMATION

A review of the GGNS Corrective Action Program and Licensee Event Reports, for the past two years, revealed one similar occurrence of a condition prohibited by Technical Specifications caused by a procedural inadequacy:

LER 2012 - 001 - 00 reported a Surveillance Test Procedure Inadequate to meet the requirements of Technical Specifications resulting in condition prohibited by Technical Specifications.