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September 29, 2000

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
Washington, D.C. 20555

Attention: Document Control Desk

SUBJECT: Grand Gulf Nuclear Station  
Docket No. 50-416  
License No. NPF-29  
Inadvertent Reactor Core Isolation Cooling Isolation  
Due to Failure to Follow Procedure  
LER 2000-004

GNRO-2000/00068

Gentlemen:

Attached is Licensee Event Report (LER) 2000-004, which is a final report.

Yours truly,

WAE/CDH  
attachment  
cc:

Ms. J. L. Dixon-Herrity, GGNS Senior Resident (w/a)  
Mr. D. E. Levanway (Wise Carter) (w/a)  
Mr. N. S. Reynolds (w/a)  
Mr. L. J. Smith (Wise Carter) (w/a)  
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NRC FORM 366 (6-1998)		U.S. NUCLEAR REGULATORY COMMISSION			APPROVED BY OMB NO. 3150-0104 EXPIRES 06/30/2001 Estimated burden per response to comply with this mandatory information collection request: 50.0 hrs. Reported lessons learned are incorporated into the licensing process and fed back to industry. Forward comments regarding burden estimate to the Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0104), Office of Management and Budget, Washington, DC 20503. If 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>					DOCKET NUMBER (2) <b>05000-416</b>			PAGE (3) <b>1 of 3</b>		
FACILITY NAME (1) <b>Grand Gulf Nuclear Station, Unit 1</b>					TITLE (4) <b>Inadvertent Reactor Core Isolation Cooling Isolation Due to Failure to Follow Procedure</b>					
EVENT DATE (5)			LER NUMBER (6)			REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)	
MONTH	DAY	YEAR	YEAR	SEQUENTIAL NUMBER	REVISION NUMBER	MONTH	DAY	YEAR	FACILITY NAME	DOCKET NUMBER
<b>09</b>	<b>07</b>	<b>2000</b>	<b>2000</b>	<b>-- 004</b>	<b>-- 00</b>	<b>09</b>	<b>29</b>	<b>2000</b>	<b>N/A</b>	<b>05000</b>
									FACILITY NAME	DOCKET NUMBER
									<b>N/A</b>	<b>05000</b>
OPERATING MODE (9)		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more) (11)								
<b>1</b>		20.2201(b)			20.2203(a)(2)(v)			50.73(a)(2)(i)		50.73(a)(2)(viii)
POWER LEVEL (10)		20.2203(a)(1)			20.2203(a)(3)(i)			50.73(a)(2)(ii)		50.73(a)(2)(x)
<b>100</b>		20.2203(a)(2)(i)			20.2203(a)(3)(ii)			50.73(a)(2)(iii)		73.71
		20.2203(a)(2)(ii)			20.2203(a)(4)			<input checked="" type="checkbox"/> 50.73(a)(2)(iv)		OTHER
		20.2203(a)(2)(iii)			50.36(c)(1)			50.73(a)(2)(v)		
		20.2203(a)(2)(iv)			50.36(c)(2)			50.73(a)(2)(vii)		Specify in Abstract below or in NRC Form 366A
<b>LICENSEE CONTACT FOR THIS LER (12)</b>										
NAME <b>Charles D. Holifield / Senior Licensing Engineer</b>						TELEPHONE NUMBER (Include Area Code) <b>601-437-6439</b>				
<b>COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)</b>										
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO EPIX
SUPPLEMENTAL REPORT EXPECTED (14)						EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR
<input type="checkbox"/> YES (If yes, complete EXPECTED SUBMISSION DATE).				<input checked="" type="checkbox"/> X		<input type="checkbox"/> NO				
<b>ABSTRACT (Limit to 1400 spaces, i. e., approximately 15 single-spaced typewritten lines) (16)</b>										
<p>On September 6, 2000, the Reactor Core Isolation Cooling (RCIC) system isolated while technicians were performing area high temperature calibrations. Procedural steps to place the logic bypass switch to the bypass position were not performed. This resulted in the closure of the RCIC Steam Supply Drywell Outboard Isolation when the leads were disconnected from the trip unit. With RCIC isolated, the plant entered a Technical Specification limiting condition for operation (LCO) which requires immediate operability verification of the High Pressure Core Spray (HPCS) system and the return of RCIC to service within 14 days.</p> <p>Immediate action was taken to enter the required LCO and verify HPCS operable. The surveillance was completed correctly and RCIC was returned to service in 41 minutes, which was well within the LCO requirement. Interim corrective actions included a human performance evaluation which determined the root cause of the event to be failure to follow the procedure. Counseling of the technicians involved was conducted as part of the interim corrective actions. Additionally, I&amp;C supervisors will also discuss this event and its implications with all I&amp;C technicians.</p> <p>This report is being submitted pursuant to 10 CFR 50.73(a)(2)(iv).</p>										

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TEXT (If more space is required, use additional copies of NRC Form 366A) (17)

**A. Reportable Occurrence**

On September 6, 2000, the Reactor Core Isolation Cooling (RCIC) [BN] system isolated while performing surveillance procedure 06-IC-1E31-A-1003, RHR Area High Temperature Calibration. Since this was an Engineered Safety Feature (ESF) actuation, this report is being submitted pursuant to 10CFR50.73(a)(2)(iv).

**B. Initial Conditions**

The plant was in OPERATIONAL CONDITION 1 with reactor water level at 36 inches and reactor water temperature at 532 degrees F at the time of this event. The plant was operating at 100 percent power. Surveillance procedure 06-IC-1E31-A-1003, RHR Area High Temperature Calibration, was being performed.

**C. Description of Occurrence**

While Instrumentation & Control (I&C) technicians were performing area high temperature calibrations, a RCIC isolation occurred. During the calibration, steps requiring the Isolation Bypass switch to be taken to the bypass position were incorrectly marked 'n/a' and not performed. A subsequent step required the leads be disconnected from the trip units. When this was done, it resulted in the closure of the RCIC Steam Supply Drywell Outboard Isolation (E51F064) [JM].

With RCIC isolated, the plant entered a Technical Specification limiting condition for operation (LCO) which requires immediate operability verification of High Pressure Core Spray (HPCS) [BG] system and the return of RCIC to service within 14 days. HPCS was verified to be operable and RCIC was returned to service within 41 minutes.

**D. Apparent Cause**

A Human Performance Evaluation (HPE) determined the root cause of the event to be failure of the technician to follow the procedure in that the step requiring that the logic bypass switch be placed in the bypass position was not performed. A contributing factor was that the procedure, although technically accurate, contained several steps that may have been confusing to the Technicians.

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U.S. NUCLEAR REGULATORY COMMISSION

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**E. Corrective Actions**

## Immediate Corrective Actions:

Immediate action was taken to enter the required LCO and verify HPCS operable. The surveillance was completed correctly and RCIC was returned to service well within the LCO requirement.

## Interim Corrective Actions:

A Human Performance Evaluation (HPE) was performed which determined the root cause of the event to be failure of the technician to follow the procedure. The technician involved was counseled on the importance of verbatim compliance with plant procedures.

## Long Term Corrective Actions:

- 1) I&C will revise 06-IC-1E31-A-1003 to eliminate confusing or misleading steps along with improvements to the Impact Statement.
- 2) I&C supervisors will discuss this event and its implications with all I&C technicians.

**F. Safety Assessment**

The RCIC system, which provides makeup water to the vessel in the event of a loss of the feedwater system, was isolated for approximately 41 minutes. The RCIC system is backed up in full by the HPCS system which was available throughout the 41 minutes. Additionally, in the unlikely event of HPCS failure, the automatic depressurization system and all low pressure ECCS were also operable. Therefore, this event did not pose a threat to the health and safety of the general public.

**G. Additional Information**

Energy Industry Identification System (EII) codes are identified in the text within brackets [ ]. Condition Report CR-GGN-2000-1293 was written as a result of this event.