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January 10, 1997

Docket No. 50-366

HL-5295

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

Edwin I. Hatch Nuclear Plant - Unit 2
Licensee Event Report
Misinterpretation of Requirements Results in
Missed Technical Specifications Surveillance

Gentlemen:

In accordance with the requirements of 10 CFR 50.73(a)(2)(i), Georgia Power Company is submitting the enclosed Licensee Event Report (LER) concerning the misinterpretation of requirements which resulted in a missed Technical Specifications surveillance.

Sincerely,

J. D. Woodard

JAW/eb

Enclosure: LER 50-366/1996-004

cc: *Georgia Power Company*
Mr. H. L. Sumner, Nuclear Plant General Manager
NORMS

U.S. Nuclear Regulatory Commission, Washington, D.C.
Mr. K. Jabbour, Licensing Project Manager - Hatch

U.S. Nuclear Regulatory Commission, Region II
Mr. L. A. Reyes, Regional Administrator
Mr. B. L. Holbrook, Senior Resident Inspector - Hatch

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NRC FORM 366 (5-92)

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104
EXPIRES: 5/31/95
ESTIMATED BURDEN PER RESPONSE TO COMPLY WITH THIS INFORMATION COLLECTION REQUEST: 50.0 HRS. FORWARD COMMENTS REGARDING BURDEN ESTIMATE TO THE INFORMATION AND RECORDS MANAGEMENT BRANCH (MNBB7714), 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.

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
Edwin I. Hatch Nuclear Plant - Unit 2

DOCKET NUMBER (2): 0 5 0 0 0 3 6 6

PAGE (3): 1 OF 6

TITLE (4)
Misinterpretation of Requirements Results In Missed Technical Specifications Surveillance

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(S)
0 9	1 7	9 6	9 6	0 0 4	0 0	0 1	1 0	9 7		0 5 0 0 0
									FACILITY NAME	0 5 0 0 0

OPERATING MODE (9)	1
POWER LEVEL (10)	1 0 0

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR ?: (Check one or more of the following) (11)

20.402(b)	20.405(c)	50.73(a)(2)(iv)	73.71(b)
20.405(a)(1)(i)	50.36(c)(1)	50.73(a)(2)(v)	73.71(c)
20.405(a)(1)(ii)	50.36(c)(2)	50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)
20.405(a)(1)(iii)	X 50.73(a)(2)(i)	50.73(a)(2)(viii)(A)	
20.405(a)(1)(iv)	50.73(a)(2)(ii)	50.73(a)(2)(viii)(B)	
20.405(a)(1)(v)	50.73(a)(2)(iii)	50.73(a)(2)(x)	

LICENSEE CONTACT FOR THIS LER (12)

NAME: Steven B. Tipps, Nuclear Safety and Compliance Manager, Hatch

TELEPHONE NUMBER (include area code): AREA CODE 9 1 2 3 6 7 - 7 8 5 1

COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS		CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRDS

SUPPLEMENTAL REPORT EXPECTED (14)

	YES (If yes, complete EXPECTED SUBMISSION DATE)	X	NO

EXPECTED SUBMISSION DATE (15): MONTH | DAY | YEAR

ABSTRACT (Limit to 1400 spaces, i.e., approximately 15 single-space typewritten lines) (16)

On 9/17/96 at 0545 EDT, Unit 2 was in the Run mode at a power level of 2558 CMWT (100 percent rated thermal power). At that time, Operations personnel discovered that Unit 2 Technical Specifications Surveillance Requirement (SR) 3.6.1.7.3 apparently had not been performed at its required frequency. SR 3.6.1.7.3 requires that the opening setpoint of Reactor Building-to-Suppression Chamber vacuum breakers 2T48-F310 and 2T48-F311 be verified to be $\leq$ 0.5 psid at least once every 18 months. Plant personnel investigated the apparent event and determined on 9/17/96 at 1200 EDT that no procedure or combination of procedures existed to meet completely the test requirements of SR 3.6.1.7.3 and that the surveillance in fact had been missed. Operations personnel declared vacuum breakers 2T48-F310 and 2T48-F311 inoperable and initiated Required Action Sheet (RAS) 2-96-201.

This event was caused by a misinterpretation of Unit 2 Technical Specifications surveillance requirements. SR 3.6.1.7.3 was interpreted to require a check of only a portion of the actuation logic for vacuum breakers 2T48-F310 and 2T48-F311. As corrective action, surveillance procedure 57SV-T48-011-2S, "Reactor Building to Pressure Suppression Chamber Vacuum Relief System FT&C," was written and approved to test the entire vacuum breaker actuation logic system and to verify the vacuum breakers opened on a simulated differential pressure signal. The procedure was completed satisfactorily by 2034 EDT on 9/17/96. The vacuum breakers were declared operable and RAS 2-96-201 was terminated at 2034 EDT.

PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor
Energy Industry Identification System codes appear in the text as (EIIS Code XX).

DESCRIPTION OF EVENT

On 9/17/96 at 0545 EDT, Unit 2 was in the Run mode at a power level of 2558 CMWT (100 percent rated thermal power). At that time, Operations personnel, during a routine review of surveillance task sheets, discovered that Unit 2 Technical Specifications Surveillance Requirement (SR) 3.6.1.7.3 apparently had not been performed at its required frequency. SR 3.6.1.7.3 requires that the opening setpoint of Reactor Building-to-Suppression Chamber vacuum breakers 2T48-F310 and 2T48-F311 (EIIS Code BF) be verified to be $\leq$ 0.5 psid at least once every 18 months.

Vacuum breakers 2T48-F310 and 2T48-F311 are air-operated valves that open upon receipt of a differential pressure signal from their associated instrumentation. Differential pressure between the Suppression Chamber atmosphere and the Reactor Building is sensed by differential pressure transmitters 2T48-N310 and 2T48-N311. The transmitters provide input to current-to-voltage (I/V) converters which, in turn, provide input to alarm units 2T48-K626A and B. These units function to actuate a relay when the voltage signal indicates that differential pressure exceeds the setpoint of the alarm unit. The relay actuation then results in the opening of vacuum breakers 2T48-F310 and 2T48-F311.

Operations personnel discovered on 9/17/96 that the surveillance procedure listed on the surveillance task sheet as meeting the requirements of SR 3.6.1.7.3 did not test the actuation logic system associated with the differential pressure actuation signal for vacuum breakers 2T48-F310 and 2T48-F311. Neither did the listed procedure test the vacuum breakers by opening them on a simulated differential pressure signal of $\leq$ 0.5 psid. Consequently, Operations personnel concluded that SR 3.6.1.7.3 appeared not to have been met for these vacuum breakers and initiated a deficiency card for the probable missed surveillance.

Upon receipt of the deficiency card, plant personnel investigated the apparent event and determined on 9/17/96 at 1200 EDT that no procedure or combination of procedures existed to test the differential pressure actuation logic system for vacuum breakers 2T48-F310 and 2T48-F311. A procedure was found which checked the setpoint at which alarm units 2T48-K626A and B actuated. However, no procedures were found which checked the pressure transmitters, the I/V converters, or the integrated function of the entire actuation logic system at the required frequency, or opened the vacuum breakers on a simulated differential pressure signal. Plant personnel therefore concluded at that time that the surveillance required by SR 3.6.1.7.3 in fact had been missed.

Operations personnel declared vacuum breakers 2T48-F310 and 2T48-F311 inoperable and initiated Required Action Sheet (RAS) 2-96-201 as directed by plant administrative control procedures and the Unit 2 Technical Specifications. No Technical Specifications actions were required to be entered immediately, however. This is because Unit 2 Technical Specifications SR 3.0.3 allows 24 hours for completion of a missed surveillance before the applicable required actions must be taken.

Surveillance procedure 57SV-T48-011-2S, "Reactor Building to Pressure Suppression Chamber Vacuum Relief System FT&C," was written and approved to test the actuation logic system for vacuum breakers 2T48-F310 and 2T48-F311 and to verify they opened on a simulated differential pressure signal. The procedure was completed satisfactorily by 2034 EDT on 9/17/96. No operability problems were identified with the vacuum breakers or their associated logic during the surveillance; therefore, they were declared operable, and RAS 2-96-201 was terminated, at 2034 EDT.

CAUSE OF EVENT

This event was caused by a misinterpretation of Unit 2 Technical Specifications surveillance requirements. Unit 2 Technical Specifications SR 3.6.1.7.3 requires that the opening setpoint of each vacuum breaker be verified to be ≤ 0.5 psid. Because the SR does not specify a "channel functional test" or a "logic system functional test" be performed, this requirement was interpreted to require a check of only a portion of the actuation logic for Reactor Building-to-Suppression Chamber vacuum breakers 2T48-F310 and 2T48-F311. Specifically, it was thought that a check of the actuation (vacuum breaker opening) setpoint of alarm units 2T48-K626A and B was sufficient to meet the requirements of SR 3.6.1.7.3 for vacuum breakers 2T48-F310 and 2T48-F311. Consequently, a check of the entire actuation logic system was not performed at the proper frequency nor was the actual operation of vacuum breakers 2T48-F310 and 2T48-F311 at the specified setpoint verified.

[The corresponding Unit 1 air-operated Reactor Building-to-Suppression Chamber vacuum breakers were and are being tested as required by Unit 1 Technical Specifications SR 3.6.1.7.3. This is because the wording of the Unit 1 surveillance requirements in effect prior to the implementation of the Improved Technical Specifications was different from that used in the Unit 2 Technical Specifications. The wording used in the Unit 1 surveillance requirements implied testing of the entire actuation logic was required and therefore was interpreted and implemented accordingly.]

REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This report is submitted per 10 CFR 50.73 (a)(2)(i) because a condition existed which was prohibited by the plant's Technical Specifications. Specifically, the requirements of Unit 2 Technical Specifications SR 3.6.1.7.3 had not been met. The actuation logic system for Reactor Building-to-Suppression Chamber

vacuum breakers 2T48-F310 and 2T48-F311 was not checked, nor were the vacuum breakers opened on a simulated differential pressure signal, at the required frequency.

This Licensee Event Report was not submitted by 10/17/96 (i.e., 30 days after the event discovery date of 9/17/96) because it was concluded on 9/26/96, after further review of SR 3.6.1.7.3, that the testing requirements had been met and no missed surveillance event had occurred. Initially, plant personnel conservatively concluded the failure to test the entire actuation logic system for vacuum breakers 2T48-F310 and 2T48-F311 and to verify the vacuum breakers opened on a simulated differential pressure signal was a missed surveillance. Accordingly, actions were taken to comply with the appropriate Technical Specifications requirements and to perform a test of the actuation logic system, including opening the vacuum breakers on a simulated differential pressure signal. The test was completed by 2034 EDT on 9/17/96 and vacuum breakers 2T48-F310 and 2T48-F311 were considered operable at that time.

Further research into the requirements of Unit 2 Technical Specifications SR 3.6.1.7.3, including a more exacting reading of the surveillance requirement, its Bases, and the surveillance requirements in effect before the implementation of the Improved Technical Specifications in July 1996, led to the conclusion the existing 18-month check of alarm units 2T48-K626A and B was sufficient to meet the requirements of SR 3.6.1.7.3. Therefore, it was concluded that no missed surveillance and, hence, no reportable event, had occurred. The rationale for the conclusion that the requirements of SR 3.6.1.7.3 had been met and no reportable condition existed was documented and approved on 9/26/96 in accordance with plant procedures.

On 11/25/96, the NRC issued Notice of Violation 96-13-05 for failure to perform the testing required by Unit 2 Technical Specifications SR 3.6.1.7.3. By issuing this violation, the NRC, in effect, interpreted SR 3.6.1.7.3 to require a test of the entire actuation logic system, including the opening of the vacuum breakers on a simulated differential pressure signal. This interpretation of the requirements of SR 3.6.1.7.3 differed from that documented in the aforementioned justification for not reporting the 9/17/96 event. After due consideration, Georgia Power Company decided not to deny Notice of Violation 96-13-05 and, by inference, not to dispute the NRC's interpretation of the requirements of SR 3.6.1.7.3; hence, this Licensee Event Report is being submitted at this time per 10 CFR 50.73(a)(2)(i).

The function of the Reactor Building-to-Suppression Chamber vacuum breakers is to relieve vacuum when primary containment depressurizes below reactor building pressure. If the primary containment depressurizes below reactor building pressure, the negative differential pressure is mitigated by flow through the vacuum breakers and through the Suppression Chamber-to-Drywell vacuum breakers. The design of the external (i.e., Reactor Building-to-Suppression Chamber) vacuum relief system consists of two vacuum breakers, a mechanical vacuum breaker and an air operated butterfly valve, located in series

in each of two lines from the reactor building to the suppression chamber airspace. The butterfly valves are actuated by differential pressure instrumentation; the mechanical vacuum breakers are self actuating. Demonstration of vacuum breaker opening setpoint is performed to ensure that the safety analysis assumption regarding vacuum breaker full open differential pressure of 0.5 psid is and remains valid.

In this event, plant personnel determined that only a portion of the opening logic system for Reactor Building-to-Suppression Chamber vacuum breakers 2T48-F310 and 2T48-F311 had been tested as required by Unit 2 Technical Specifications SR 3.6.1.7.3. Personnel did determine, however, that different portions of the opening logic system were checked or calibrated at various frequencies (e.g., 18 months, five years) and that the vacuum breakers were manually cycled to comply with inservice testing requirements. The instrumentation checks and calibrations and the manual cycling of vacuum breakers 2T48-F310 and 2T48-F311 provided reasonable assurance the vacuum breakers would function per design. That the vacuum breakers were functioning was confirmed on 9/17/96 when surveillance procedure 57SV-T48-011-2S was performed successfully, proving the vacuum breakers, including their opening logic system, were working properly. The successful completion of procedure 57SV-T48-011-2S verifies the vacuum breakers were capable of performing their intended function and therefore were operable.

Based upon the preceding discussion, it is concluded that this event had no adverse impact on nuclear safety. This analysis is applicable to all power levels.

CORRECTIVE ACTIONS

Surveillance procedure 57SV-T48-011-2S was written and approved to test the entire vacuum breaker actuation logic system and to verify vacuum breakers 2T48-F310 and 2T48-F311 opened on a simulated differential pressure signal of $\leq$ 0.5 psid. The procedure was completed satisfactorily and the vacuum breakers were declared operable by 2034 EDT on 9/17/96.

This or equivalent test(s) will be performed at the frequency required by Unit 2 Technical Specifications SR 3.6.1.7.3.

ADDITIONAL INFORMATION

No systems other than those already mentioned in this report were affected by this event.

No failed components caused or resulted from this event.

No previous similar events in which a surveillance was not performed due to a misinterpretation of its requirements have been reported in the last two years.