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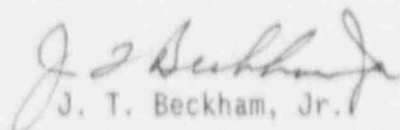
U.S. Nuclear Regulatory Commission
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PLANT HATCH - UNIT 2
NRC DOCKET 50-366
OPERATING LICENSE NPF-5
LICENSEE EVENT REPORT
ERROR IN FSAR RESULTS IN MISSED
TECHNICAL SPECIFICATIONS SURVEILLANCES

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) addressing an error in an FSAR table that resulted in missed Technical Specifications surveillances. This event occurred on Unit 2.

Sincerely,


J. T. Beckham, Jr.

SRP/sp

Enclosure: LER 50-366/1991-018

c: Georgia Power Company
Mr. H. L. Sumner, General Manager - Nuclear Plant
Mr. J. D. Heidt, Manager Engineering and Licensing - Hatch
NORHS

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

U.S. Nuclear Regulatory Commission, Region II
Mr. S. D. Ebner, Regional Administrator
Mr. L. D. Wert, Senior Resident Inspector - Hatch

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LICENSEE EVENT REPOP' (LER)

FACILITY NAME (1) PLANT HATCH, UNIT 2										DOCKET NUMBER (2) 05000366		PAGE (3) 1 of 5		
TITLE (4) ERROR IN THE FSAR RESULTS IN MISSED TECHNICAL SPECIFICATIONS SURVEILLANCES														
EVENT DATE (5)			LER NUMBER (6)				REPORT DATE (7)			OTHER FACILITIES INVOLVED (8)				
MONTH	DAY	YEAR	YEAR	SEQ NUM	REV	MONTH	DAY	YEAR	FACILITY NAMES		DOCKET NUMBER(S)			
06	04	91	91	018	00	07	03	91			05000			
THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR (11)														
OPERATING MODE (9)		1		20.402(b)		20.405(c)		50.73(a)(2)(iv)		73.71(b)				
POWER LEVEL		050		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				
				20.405(a)(1)(iii)		X 50.73(a)(2)(i)		50.73(a)(2)(viii)(A)		Abstract below)				
				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)(ix)						
LICENSEE CONTACT FOR THIS LER (12)														
NAME STEVEN B. TIPPS, MANAGER NUCLEAR SAFETY AND COMPLIANCE, HATCH										TELEPHONE NUMBER 912 367-7851				
COMPLETE ONE LINE FOR EACH FAILURE DESCRIBED IN THIS REPORT (13)														
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRC	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORT TO NRC					
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"/> NO				
ABSTRACT (16)														

On 6/4/91 at approximately 1330 CDT, Unit 2 was in the Run mode at a power level of 1218 CMWT (50% rated thermal power). At that time, it was determined a local leak rate test of Primary Containment Penetration X-228B had not been performed as required by Unit 2 Technical Specifications section 4.6.1.2.d. Limiting Condition for Operation (LCO) 2-91-468 was initiated at 1330 CDT per the requirements of Unit 2 Technical Specifications section 3.6.1.1. A local leak rate test of Penetration X-228B was performed satisfactorily on 6/4/91. LCO 2-91-468 was terminated at 1745 CDT following successful performance of the test. On 6/10/91 at approximately 0930 CDT, during a followup investigation of the above event, it was determined Penetration X-228B had not been verified to be closed at least once every 31 days as required by Unit 2 Technical Specifications section 4.6.1.1. Since the penetration had been verified to be closed on 6/4/91 when the leak rate test had been performed, the required surveillance was current and an LCO did not have to be entered.

The cause of these events is an error in the Unit 2 Final Safety Analysis Report (FSAR). The Unit 2 FSAR incorrectly identified Penetration X-228B as not requiring a local leak rate test. This error also led personnel to believe the requirements of Unit 2 Technical Specifications section 4.6.1.1 did not apply.

Corrective actions include performing a local leak rate test of the penetration, revising applicable surveillance procedures to include checks of the penetration, correcting the Unit 2 FSAR, and reviewing Unit 1 and Unit 2 penetrations.

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PLANT AND SYSTEM IDENTIFICATION

General Electric - Boiling Water Reactor

Energy Industry Identification System Codes are identified in the text as (EIIIS Code XX).

DESCRIPTION OF EVENT

On 6/4/91 at approximately 1330 CDT, Unit 2 was in the Run mode at a power level of 1218 CMWT (50% rated thermal power). At that time, plant Engineering Support personnel, using information provided by Architect/Engineer personnel, determined a local leak rate test of Primary Containmentment (EIIIS Code NH) Penetration X-228B, a spare electrical penetration in the Unit 2 Suppression Pool Chamber, had never been performed as required by Unit 2 Technical Specifications section 4.6.1.2.d. This specification requires that local leak rate tests of Primary Containmentment penetrations be performed during each reactor shutdown for refueling, but in no case, at intervals greater than 2 years.

In December 1990, Plant Hatch's Architect/Engineer was directed to perform a detailed review to resolve apparent discrepancies and assure consistency between procedures, the Unit 2 Inservice Testing Plan, the Unit 2 Final Safety Analysis Report (FSAR), and the Unit 2 Technical Specifications concerning Primary Containmentment penetrations and isolation barriers (e.g., valves, blind flanges). This activity was initiated in anticipation of removing PCIV 1'sts from the Technical Specifications as allowed by NRC Generic Letter 91-08. From a review of plant drawings and the Unit 2 FSAR, the Architect/Engineer determined the type of test for Penetration X-228B was incorrectly identified as a Type A test in Unit 2 FSAR Table 3.8-5, Penetration Leakage Test List. A Type A test is an Overall Integrated Containmentment Leakage Rate test and is required by Unit 2 Technical Specifications section 4.6.1.2.a to be performed at a nominal frequency of once every 40 months (3.3 years). The actual type of test required to be performed on Penetration X-228B is a Type B test.

A Type B test is a local leak rate test of individual Primary Containmentment penetrations whose design incorporates resilient seals, gaskets, or sealant compounds. Architect/Engineer review of plant drawing S-25686, "Suppression Chamber Penets. X-228-A, B, & C, X-232," showed the isolation barrier for Penetration X-228B is a blind flange using two O-rings (i.e., resilient seals) in series to isolate and minimize leakage through this penetration. Consequently, Penetration X-228B requires a Type B test which should have been performed per the requirements of Unit 2 Technical Specifications section 4.6.1.2.d. This information was communicated to plant Engineering Support personnel who then found a Type B test had never been performed on this penetration. Its leakage integrity had been verified during the performance of the Type A tests, but only as part of the overall Primary Containmentment leakage integrity verification.

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Upon discovery of this problem, plant personnel initiated a Deficiency Card per approved plant procedures. On 6/4/91 at 1330 CDT, licensed Operations personnel initiated Limiting Condition for Operation (LCO) 2-91-468 per the requirements of Unit 2 Technical Specifications section 3.6.1.1. Procedure 42SV-TET-001-2S, "Primary Containment Periodic Type B & Type C Leakage Tests," was temporarily changed to include instructions for a local leak rate (Type B) test of Penetration X-228B. The test was performed on 6/4/91 with no leakage found. LCO 2-91-468 was terminated at 1745 CDT on 6/4/91 following successful performance of the local leak rate test.

On 6/10/91 at approximately 0930 CDT, Unit 2 was in the Run mode at a power level of 2436 CMWT (100% rated thermal power). At that time, plant Nuclear Safety and Compliance personnel were performing a followup investigation of the previously described event. They determined Penetration X-228B had not been verified to be closed at least once every 31 days as required by Unit 2 Technical Specifications section 4.6.1.1.a.1. A Deficiency Card documenting this problem was initiated as required by approved plant procedures. No LCO was initiated because the required verification had been performed 6 days earlier, on 6/4/91, when a local leak rate test had been performed satisfactorily on the subject penetration. The required surveillance was considered current at the time this problem was discovered; therefore, Unit 2 was in compliance with the applicable Technical Specifications requirements. No LCO condition existed.

CAUSE OF EVENT

The cause of these events is an error in the Unit 2 FSAR. Unit 2 FSAR Table 3.8-5 incorrectly identified the type of test for Penetration X-228B as a Type A test. Apparently, this misled personnel into believing the penetration was sealed via a continuous weld (seal-welded) instead of sealed with two O-rings in series, requiring a Type B test. Because of the error in the Unit 2 FSAR, Penetration X-228B was never included in the procedures for performing Type B leakage tests. Consequently, a Type B test was not performed on the penetration as required by Unit 2 Technical Specifications section 4.6.1.2.d.

Furthermore, for the same reason, Penetration X-228B was not verified to be closed at least once per 31 days as required by Unit 2 Technical Specifications section 4.6.1.1.a.1. Since personnel believed the penetration to be seal-welded, it was felt it could not be opened and there was no need to verify it was closed every 31 days.

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REPORTABILITY ANALYSIS AND SAFETY ASSESSMENT

This report is required by 10 CFR 50.73(a)(2)(i) because a condition prohibited by the plant's Technical Specifications existed. The requirements of Unit 2 Technical Specifications sections 4.6.1.2.d and 4.6.1.1.a.1 had not been met for Primary Containment Penetration X-228B. Due to an error in Unit 2 FSAR Table 3.8-5, local leak rate (Type B) tests had not been performed on the penetration as required by section 4.6.1.2.d, and periodic verification the penetration was closed was not performed as required by section 4.6.1.1.a.1.

The Primary Containment is designed to limit the leakage of radioactive materials released from a breach of the nuclear system process piping during and following the postulated Design Basis Accident. The limitations on Primary Containment leakage, as contained in the Unit 2 Technical Specifications, ensure that total containment leakage is less than that which would result in offsite doses greater than those allowed by 10 CFR 100. The Unit 2 Technical Specifications require periodic verification testing the leak-tight integrity of individual Primary Containment penetration isolation barriers. The purpose of these leakage tests is to assure leakage through the Primary Containment penetration isolation barriers does not exceed allowable leakage values as specified in the Technical Specifications and accident analyses.

In the event described in this report, it was found one of the containment isolation barriers, the blind flange and O-rings for Penetration X-228B, had not been tested in accordance with the requirements of the Unit 2 Technical Specifications. Specifically, the penetration barrier had not been subjected to the required local leak rate, or Type B, test nor had it been verified to be closed once every 31 days. Its leak-tight integrity had been verified periodically as part of the Overall Integrated Containment Leakage Rate, or Type A, test. While the Type A test did not test Penetration X-228B specifically, it did verify the overall Primary Containment leakage was within acceptable limits. Leakage through all containment isolation barriers, including the blind flange and O-rings for Penetration X-228B, was verified to be less than that specified in the Unit 2 Technical Specifications and accident analyses.

Upon discovery of this event, a local leak rate test was performed on Penetration X-228B. No leakage was found (i.e., its as-found leakage was zero). Because this is a spare penetration, its isolation barrier is not subjected to use (e.g., opening and closing during normal plant operations, removal and replacement during refueling) which could result in the degradation of the ability of the blind flange and O-rings to limit leakage through the penetration. Therefore, it is reasonable to conclude its leakage has always been within acceptable limits and it has been in the isolated (closed) condition during unit operation.

Based on the above analysis, it is concluded that this event had no adverse impact on the public health and safety. This analysis is applicable to all power levels and operating conditions for which Primary Containment integrity is required.

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CORRECTIVE ACTION

Upon discovering local leak rate tests had not been performed on Primary Containment Penetration X-228B, LCO 2-91-468 was initiated per the requirements of Unit 2 Technical Specifications section 3.6.1.1. Procedure 42SV-TET-001-2S was temporarily changed to include instructions for a local leak rate test of the penetration. The test was performed satisfactorily. LCO 2-91-468 was terminated on 6/4/91 at 1745 CDT following successful performance of the leak rate test. Procedure 42SV-TET-001-2S will be permanently revised to include a local leak rate test of Penetration X-228B prior to the beginning of the next scheduled Unit 2 refueling outage.

Procedure 34SV-SUV-011-2S, "Primary and Secondary Containment Integrity Demonstration," is currently undergoing revision to include the required 31-day verification that Penetration X-228B is closed. This revision will be effective by 7/4/91 when the next verification of this penetration is due.

A physical walkdown of the Unit 1 Primary Containment penetrations and the accessible portion of the Unit 2 Primary Containment penetrations will be performed by the end of 1991. A physical walkdown of the non-accessible portion of the Unit 2 penetrations will be performed by the end of the Fall 1992 Unit 2 refueling outage. These walkdowns will serve to verify the accuracy of the Unit 1 and Unit 2 FSAR tables.

Unit 2 FSAR Table 3.8-5 will be corrected to indicate a Type B test is the required test for Penetration X-228B. This, and other corrections identified as necessary by the physical walkdown of Primary Containment penetrations, will be made following completion of the walkdowns.

ADDITIONAL INFORMATION

No systems other than Primary Containment were affected by this event. Penetration X-228B is a spare penetration; consequently, its condition can affect no other systems or components.

No failed components caused or resulted from this event.

Within the last 2 years, a previous similar event in which a required surveillance was never performed was reported in LER 50-366/1990-007, dated 10/12/90. Corrective actions for the previous similar event would not have prevented this event because the causes of the event are different. This event was the result of incorrect technical information, whereas the previous event was the result of personnel error. In the previous event, the necessary information was available and correct, but was incorporated incorrectly into plant procedures.