

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) PLANT HATCH, UNIT 2	DOCKET NUMBER (2) 0 5 0 0 0 3 6 6	PAGE (3) 1 OF 0 9
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TITLE (4)
DEFICIENT PROCEDURE CAUSES INADEQUATE RESPONSE TIME SURVEILLANCE RESULTS

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 NAMES		DOCKET NUMBER(S)
0 4	2 1	8 8	8 8	0 1	2 0 0	0 5	2 3	8 8			0 5 0 0 0
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OPERATING MODE (9) 4	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)									
POWER LEVEL (10) 0 0 0	<input type="checkbox"/> 20.402(b)	<input type="checkbox"/> 20.406(c)	<input type="checkbox"/> 50.73(a)(2)(iv)	<input type="checkbox"/> 73.71(b)						
	<input type="checkbox"/> 20.405(a)(1)(i)	<input type="checkbox"/> 50.36(c)(1)	<input type="checkbox"/> 50.73(a)(2)(v)	<input type="checkbox"/> 73.71(c)						
	<input type="checkbox"/> 20.405(a)(1)(ii)	<input type="checkbox"/> 50.36(c)(2)	<input type="checkbox"/> 50.73(a)(2)(vii)	OTHER (Specify in Abstract below and in Text, NRC Form 366A)						
	<input type="checkbox"/> 20.405(a)(1)(iii)	<input checked="" type="checkbox"/> 50.73(a)(2)(i)	<input type="checkbox"/> 50.73(a)(2)(viii)(A)							
	<input type="checkbox"/> 20.405(a)(1)(iv)	<input type="checkbox"/> 50.73(a)(2)(ii)	<input type="checkbox"/> 50.73(a)(2)(viii)(B)							
<input type="checkbox"/> 20.405(a)(1)(v)	<input type="checkbox"/> 50.73(a)(2)(iii)	<input type="checkbox"/> 50.73(a)(2)(ix)								

LICENSEE CONTACT FOR THIS LER (12)		TELEPHONE NUMBER	
NAME J. D. Heidt, Nuclear Licensing Manager - Hatch		AREA CODE 4 0 4	5 2 6 7 4 5 3 0

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

CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRCS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPRCS

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

On 04/21/88 at approximately 1315 CDT, Unit 2 was in cold shutdown with an approximate power level of 0 MWt (approximately 0 percent of rated thermal power). At that time, a member of the Procedure Upgrade Program (PUP) determined that the procedure for testing the response time for the isolation function of the supply and exhaust dampers in the Reactor Building (EIIS Code VA) and Refueling Floor Normal Ventilation (EIIS Code VG) systems did not include testing the response time of the isolation actuation instrumentation. Thus, surveillance requirements were not met resulting in a condition prohibited by the plant's Technical Specifications.

The root cause of this event is procedure inadequacy. The procedure did not properly measure isolation system response time from the receipt of the initial signal through the closure of the dampers.

The corrective actions for this event included developing and performing two special purpose procedures which demonstrated acceptable instrumentation response times and scheduling development of permanent procedure revisions.

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

A. REQUIREMENT FOR REPORT

This report is required per 10 CFR 50.73 (a)(2)(i), because a condition existed that was prohibited by the plant's Technical Specifications. Specifically, some of the surveillance requirements of Technical Specifications section 4.3.2.3 were not met.

B. UNIT(s) STATUS AT TIME OF EVENT

1. Power Level/Operating Mode

Unit 2 was in cold shutdown with an approximate power level of 0 MWt (approximately 0 percent of rated thermal power). The reactor pressure was atmospheric with a reactor coolant temperature of approximately 121 degrees Fahrenheit (°F).

2. Inoperable Equipment

There was no inoperable equipment that contributed to this event.

C. DESCRIPTION OF EVENT

1. Event

On 04/21/88 at approximately 1315 CDT, a member of the Procedure Upgrade Program (PUP) was performing a review of procedure 34SV-T41-001-2S (Secondary Containment Isolation Damper Operability). At that time, the PUP member determined that the procedure's method of performing response time testing for the isolation function of the supply and exhaust dampers in the Reactor Building (EIIS Code VA) and Refueling Floor Normal Ventilation (EIIS Code VG) systems did not completely fulfill plant Technical Specifications requirements.

Technical Specifications section 4.6.5.2.c.1 requires that the isolation time of the Reactor Building Ventilation system supply dampers (2T41-F011A and B) and exhaust dampers (2T41-F044A and B), as specified in table 3.6.5.2-1, be measured at least once per 18 months. Technical Specifications section 4.9.5.2.1.a.1 contains the same requirement for the Refueling Floor Ventilation system supply dampers (2T41-F003A and B) and exhaust dampers (2T41-F023A and B), as listed in table 3.9.5.2-1.

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The response time testing performed under procedure 34SV-T41-001-2S met these requirements by installing a jumper over the last relay in the isolation actuation logic to simulate an actuation signal. The damper closure times were then measured against the requirements in Technical Specifications tables 3.6.5.2-1 and 3.9.5.2-1.

However, Technical Specifications section 4.3.2.3 requires that the isolation system response time of each function shown in table 3.3.2-3 be demonstrated to be within its limit at least once per 18 months. The response time requirements in this table cover the response of the isolation actuation logic, and as a footnote to the table explains, these times are to be added to the actual closure times, as covered by other tables, to obtain the isolation system response time. Specifically, items 2 a, b, c, and d of table 3.3.2-3 cover the secondary containment isolation actuation instrumentation which actuates the ventilation systems dampers listed previously.

The PUP member determined that procedure 34SV-T41-001-2S did not contain steps to measure the isolation actuation instrumentation response times and add them to the damper closure times to obtain the complete isolation system response times, as required by Technical Specifications section 4.3.2.3. A Deficiency Card was generated, as required by the plant's administrative control procedures, to document the condition.

At 1335 CDT, Operations personnel received the deficiency card for processing. On 4/22/88 at 1025 CDT, Operations personnel initiated a Limiting Condition for Operation (LCO 2-88-362) to ensure that isolation actuation instrumentation for the dampers was tested to demonstrate that the applicable response time requirements were met prior the startup of Unit 2.

Special purpose procedures 57SP-042688-IP-1-2S and 57SP-042188-IF-1-2S were developed to perform the response time testing for the isolation actuation instrumentation. On 5/12/88, the testing was satisfactorily completed, and the LCO was terminated.

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2. Dates/Times

Date	Time (CDT)	Description
4/21/88	1315	PUP personnel determined that procedure 34SV-T41-001-2S did not satisfy the response time testing requirements of the Technical Specifications for the isolation actuation instrumentation for the Reactor Building and Refueling Floor Ventilation systems supply and exhaust dampers. A deficiency card was generated to document the condition.
	1335	Operations personnel received the deficiency card for processing.
4/22/88	1025	Operations personnel initiated LCO 2-88-362 to ensure that instrumentation response time testing was performed prior to the startup of Unit 2. Development was begun of special purpose procedures 57SP-042688-IP-1-2S and 57SP-042188-IF-1-2S to enable performance of instrumentation response time testing.
5/12/88		Response time testing was satisfactorily completed under the special purpose procedures. Operations personnel terminated the LCO.

3. Other Systems Affected

No systems, other than the isolation actuation instrumentation for the Reactor Building and Refueling Floor Ventilation systems supply and exhaust dampers, were affected by this event. This instrumentation has no secondary functions.

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4. Method of Discovery

This event was discovered as a part of the PUP. This is a long term program to upgrade all plant procedures. For surveillance procedures, the PUP includes a technical review to ensure that these procedures properly address all Technical Specifications requirements. Procedure 34SV-T41-001-2S had not yet been through the PUP.

5. Operator Actions

Operations personnel performed the following actions:

1. Processed the deficiency card as required by the plant's administrative control procedures.
2. Initiated an LCO to ensure Unit 2 compliance with Technical Specifications requirements prior to startup.
3. Terminated the LCO when response time testing requirements were met.

Maintenance personnel performed the following action:

1. Satisfactorily performed special purpose procedures 57SP-042688-IP-1-2S and 57SP-042188-IF-1-2S to meet response time testing requirements.

6. Auto/Manual Safety System Response

No manual or automatic safety systems actuations occurred, nor were any required to occur.

D. CAUSE OF EVENT

1. Immediate Cause

The immediate cause of this event is the same as the root cause.

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2. Root/Intermediate Cause

The root cause of this event is a deficient procedure, 34SV-T41-001-2S. The procedure failed to incorporate the Technical Specifications response time testing requirements associated with the isolation actuation instrumentation for the Reactor Building and Refueling Floor Ventilation systems supply and exhaust dampers.

A possible contributing factor to the procedural deficiency is the ambiguity of the Technical Specifications for the response time testing of the isolation function of the dampers. The footnote to table 3.3.2-3 covering the isolation actuation instrumentation states that the instrumentation response times are to be added to valve movement times shown in tables 3.6.3-1, 3.6.5.2-1 and 3.9.5.2-1, as applicable, to obtain the isolation system response time for each valve. However, table 3.3.2-1, item 2, which covers the secondary containment isolation actuation instrumentation and details the valves actuated by specific signals, gives no indication that the dampers are operated by these signals.

E. ANALYSIS OF EVENT

The instrumentation section of the Technical Specifications describes requirements that ensure the effectiveness of the instrumentation used to assure the safe operation of the plant and mitigate the consequences of accidents. For isolation systems, this is done by prescribing the operability requirements, trip setpoints, and response times for isolation of the systems.

In this event, it was determined that the response times of the isolation actuation instrumentation for the Reactor Building and Refueling Floor Ventilation systems supply and exhaust dampers had not been tested in accordance with Technical Specifications requirements due to a deficiency in procedure 34SV-T41-001-2S.

However, the setpoints and functional capabilities of the isolation actuation instrumentation had been tested in accordance with Technical Specifications requirements under other procedures. The closure functions of the dampers and their associated response times had also been adequately demonstrated per procedure 34SV-T41-001-2S. Thus, the dampers and associated isolation actuation logic had been demonstrated to be capable of performing their intended safety functions.

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Additionally, when the response time testing was performed with special purpose procedures, the isolation actuation instrumentation demonstrated acceptable response times. However, since the isolation actuation instrumentation response time was not verified in the past, the potential consequences of a response time greater than Technical Specifications limits was reviewed.

Two Design Basis Accidents (DBAs) analyzed in the Final Safety Analysis Report (FSAR) are applicable in the analysis of this event. These two DBAs are the Loss Of Coolant Accident (LOCA) and the fuel handling accident (i.e., dropping an irradiated fuel bundle onto the core). The DBAs result in significant releases of radioactivity into the reactor building (LOCA) and the refueling floor (fuel handling accident). Any one of the signals resulting from a LOCA (high drywell pressure or low low reactor water level) or a fuel handling accident (refueling floor exhaust high radiation) will result in the subject dampers closing, and the Standby Gas Treatment (SBGT) EIIIS Code BH system starting.

The secondary containment isolates to direct the reactor building and refueling floor atmospheres through the SBGT system and out of the main stack. This ensures the releases are filtered and released at a higher elevation than normal.

If the secondary containment isolation dampers did not close in the Technical Specifications required time, then some or all of the containment atmosphere would bypass the SBGT system for a longer period of time. However, this is bounded by the FSAR analysis of both DBAs, which assume "unfiltered" activity leaks directly to the environment, at ground level, for defined periods of time. For a LOCA, this release occurs for 120 seconds after the receipt of the secondary containment isolation signal, and for the fuel handling accident, the unfiltered release occurs for 100 seconds. Under these conservative assumptions, offsite exposures for these two DBAs are less than 10 CFR 100 limits.

Also, the activity released, during possible excessive damper response time, will be filtered and released at an elevated level (through the normal ventilation system and out of the reactor building vent stack). Although the activity will not go through the SBGT system, it will not be released "unfiltered" and "at ground level".

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Finally, the isolation dampers can be assumed to have been capable of response within 100 seconds. Other procedures verified the isolation actuation logic worked and past response time tests on similar logic circuits and components (e.g., relays, pressure sensors, radiation detectors) indicate the logic would have responded in much less than 100 seconds (usually less than 2 seconds).

Based on the above information, it is concluded that this event had no adverse impact on nuclear safety. Additionally, while this event occurred when Unit 2 was shutdown, the above analysis is applicable to all power levels and operating modes.

F. CORRECTIVE ACTIONS

The corrective actions for this event included:

1. Developing and performing special purpose procedures 57SP-042688-IP-1-2S and 57SP-042188-IF-1-2S to demonstrate acceptable response times, prior to startup of Unit 2, for the isolation actuation instrumentation covered in Technical Specifications table 3.3.2-3, items 2 a, b, c, and d.
2. Scheduling development of permanent procedure revisions to assure future performance of response time testing for the isolation actuation instrumentation for the ventilation systems dampers. An estimated completion date for these procedure revisions is prior to the next Unit 2 refueling outage.

G. ADDITIONAL INFORMATION

1. FAILED COMPONENT(S) IDENTIFICATION

There was no component failure experienced in this event.

2. PREVIOUS SIMILAR EVENTS

There has been one similar event to the one described in this LER. It was reported in LER 50-366/1988-002 (dated 2/19/88).

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This LER describes two events where surveillance requirements were not met due to procedural inadequacies. Specifically, event number 2 in this LER is similar since it involved missed response time testing for isolation actuation instrumentation.

The cause of event number 2 was another deficient procedure. The corrective actions included developing a special purpose procedure to perform the missed response time testing and scheduling development of permanent procedure revisions.

However, the corrective actions for the similar event would not have prevented the event described by LER 50-366/1988-012 because the cause of the similar event was a different deficient procedure, as noted above.

The long term corrective actions to prevent these sorts of events is PUP. In both of the events discussed herein, PUP personnel identified the procedure inadequacy. This detection testifies to the effectiveness of the program. While the events are reportable per the requirements of 10 CFR 50.73, long term corrective actions were in progress to detect and correct procedure deficiencies. PUP will continue to review plant procedures against their respective Technical Specifications requirements to identify problems. Based on the results of these reviews, appropriate corrective actions will be performed to correct any noted deficiencies.

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the southern electric system

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May 23, 1988

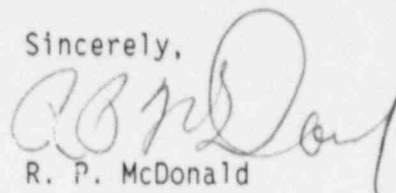
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PLANT HATCH - UNIT 2
NRC DOCKET 50-366
OPERATING LICENSE NPF-5
LICENSEE EVENT REPORT
DEFICIENT PROCEDURE CAUSES INADEQUATE
RESPONSE TIME SURVEILLANCE RESULTS

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 a condition that was prohibited by the plant's Technical Specifications. The event occurred at Plant Hatch - Unit 2.

Sincerely,



R. P. McDonald

CLT/ct

Enclosure: LER 50-366/1988-C12

c: (see next page)

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U. S. Nuclear Regulatory Commission
May 23, 1988
Page Two

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Mr. L. T. Gucwa, Manager Nuclear Safety and Licensing
GO-NORMS

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