

## LICENSEE EVENT REPORT

CONTROL BLOCK: 

1	2	3	4	5	6
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 (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

0	1
---	---

G	A	E	I	H	2
---	---	---	---	---	---

2	0	0	-	0	0	0	0	0	0	-	0	0
---	---	---	---	---	---	---	---	---	---	---	---	---

3	4	1	1	1	1
---	---	---	---	---	---

4	5
---	---

  
7 8 9 14 15 25 26 30 57 CAT 58CON'T  

0	1
---	---

 REPORT SOURCE 

L	6	0	5	0	0	0	3	6	6	7	0	4	0	7	8	2	8	0	5	0	6	8	2
---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

 DOCKET NUMBER 60 61 68 69 74 75 80  
EVENT DATE REPORT DATE

## EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

0	2
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 With Unit 2 in refueling, an inspection of pilot sensing tube support  

0	3
---	---

 welds on all main steam safety/relief valves was performed per LER No.  

0	4
---	---

 50-366/1982-023. A crack was found for body S/N 303, 2B21-F013E. No sig-  

0	5
---	---

 nificant occurrence took place as a result of this event. Unit 1 has in-  

0	6
---	---

 stalled valves of the same design. This is a non-repetitive event. This  

0	7
---	---

 event posed no threat to public health or safety. Welds on all other  

0	8
---	---

 relief valve inspected at this time were found to be acceptable.  
7 8 9 80

0	9
---	---

 SYSTEM CODE 

C	C
---	---

 (11) CAUSE CODE 

E
---

 (12) CAUSE SUBCODE 

B
---

 (13) COMPONENT CODE 

V	A	L	V	E	X
---	---	---	---	---	---

 (14) COMP. SUBCODE 

X
---

 (15) VALVE SUBCODE 

B
---

 (16)  
7 8 9 10 11 12 13 18 19 20  
(17) LER/RO REPORT NUMBER 

8	2
---	---

 (21) EVENT YEAR 

0	2	9
---	---	---

 (24) SEQUENTIAL REPORT NO. 

0	3
---	---

 (28) OCCURRENCE CODE 

L
---

 (30) REPORT TYPE 

0
---

 (32) REVISION NO.  
7 8 9 21 22 23 24 26 27 28 29 30 31 32  
ACTION TAKEN 

F
---

 (33) FUTURE ACTION 

F
---

 (34) EFFECT ON PLANT 

Z
---

 (35) SHUTDOWN METHOD 

Z
---

 (36) HOURS 

0	0	0	0
---	---	---	---

 (40) ATTACHMENT SUBMITTED 

Y
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 (41) NPD-4 FORM SUB. 

N
---

 (42) PRIME COMP. SUPPLIER 

N
---

 (43) COMPONENT MANUFACTURER 

T	0	2	0
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 (46)  
7 8 9 33 34 35 36 37 40 41 42 43 44 47

## CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

1	0
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 The cause of this event was probably fatigue due to tube vibration. The  

1	1
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 valve body has been replaced with a body that was modified by the vendor.  

1	2
---	---

 This modification will be made on all valves during the next refueling  

1	3
---	---

 outages on both units.  
7 8 9 80

1	4
---	---

 FACILITY STATUS 

H
---

 (28) % POWER 

0	0	0
---	---	---

 (29) OTHER STATUS 

NA
----

 (30) METHOD OF DISCOVERY 

C
---

 (31) DISCOVERY DESCRIPTION 

Special Inspection
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 (32)  
7 8 9 10 12 13 44 45 46 80  

1	5
---	---

 ACTIVITY RELEASED OF RELEASE 

Z
---

 (33) CONTENT 

Z
---

 (34) AMOUNT OF ACTIVITY 

NA
----

 (35) LOCATION OF RELEASE 

NA
----

 (36)  
7 8 9 10 11 44 45 80  

1	6
---	---

 PERSONNEL EXPOSURES NUMBER 

0	0	0
---	---	---

 (37) TYPE 

Z
---

 (38) DESCRIPTION 

NA
----

 (39)  
7 8 9 11 12 13 80  

1	7
---	---

 PERSONNEL INJURIES NUMBER 

0	0	0
---	---	---

 (40) DESCRIPTION 

NA
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 (41)  
7 8 9 11 12 80  

1	8
---	---

 LOSS OF OR DAMAGE TO FACILITY TYPE 

Z
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 (42) DESCRIPTION 

NA
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 (43)  
7 8 9 10 80  

1	9
---	---

 PUBLICITY ISSUED 

N
---

 (44) DESCRIPTION 

NA
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 (45)  
7 8 9 10 80

8205180237 H. L. Sumner - Supt. Plt. Eng. Serv. PHONE 912-367-7851

LER #: 50-366/1982-29  
Licensee: Georgia Power Company  
Facility Name: Edwin I. Hatch  
Docket #: 50-366

Narrative Report  
for LER 50-366/1982-29

With Unit 2 in the refueling mode, an inspection of the pilot sensing tube support welds on the main steam safety/relief valves was performed per a commitment made in LER No. 50-366/1982-023, Rev. 0. A crack was found in the Heat-Affected Zone (HAZ) between the valve body wall and the tube support plate-to-body weld on valve body S/N 303. The affected support plate is on the pilot assembly side of the sensing tube. This valve had been installed as 2B21-F013E and is a Target Rock model 7567F safety/relief valve.

The pilot sensing tube is welded in between two small plates which are, in turn, welded to the inside wall of the valve body. The purpose of this tube is to provide a true pressure to the pilot assembly during valve actuation. At this time, the static pressure in the valve is reduced due to steam flowing through the open valve. The absence of this tube will cause the valve to reseal at a higher pressure but will not affect the actuation setpoint. When the tube came out of body S/N 312, it was swept down the discharge line into the tee-quencher in the torus. The A/E has stated that, due to the small size of the tube, its passage down the discharge line should have caused no damage to the line or to the tee-quencher. The A/E has postulated a failure mode in which the bottom end of the tube becomes loose at the support and the top end becomes stuck in its boring in the body wall, causing the tube to crimp. If this were to occur, the pilot assembly would not be able to receive the steam pressure signal, and the pressure relief function of the valve would be inoperable. The vendor analyzed this postulated failure mode and responded by stating that the probability of occurrence is no greater than the probability of tube blockage by any other means.

LER No. 50-366/1982-023, Rev. 0 described the failure of tube support welds on valve body S/N 312. As a result of this failure, tube support welds on all Unit 2 valves of this design were inspected. The only failure discovered by this inspection was on valve body S/N 303. Tube support welds on all other Unit 2 valves were found to be acceptable. The vendor stated that, prior to the failure of body S/N 312, only one instance of a pilot sensing tube coming loose had occurred. This failure was in a Japanese Reactor. The absence of this tube does not affect the manual or automatic air

actuation functions of the valve. Plant Technical Specifications section 3/4.4.2 requires nine of the eleven relief valves to be operable. No significant occurrence took place as a result of this event. Unit 1 has installed eleven relief valves of the same model. This event posed no threat to public health or safety.

The vendor has stated that the failure of the tube support welds was probably due to fatigue induced by lateral vibration of the upper end of the tube. The vendor has proposed a design modification in which the two support plates are replaced with a single U-shaped strap welded to the tube and to the valve wall. In addition, the upper end of the tube is to be tack-welded to the valve wall in order to prevent tube vibration. The A/E has reviewed and approved this new design. These modifications have been made by the vendor on valve body S/N 312. This body was installed as 2B21-F013E after body S/N 303 was removed. All of these valve bodies will be modified during the next refueling outages for both units.