

50-296

NRC DISTRIBUTION FOR PART 50 DOCKET MATERIAL

FILE NUMBER
INCIDENT REPORT

TO: N.C. MOSELEY

FROM: TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENN.
H.S. FOX

DATE OF DOCUMENT

12-16-76

DATE RECEIVED

12-20-76

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☒ ORIGINAL
☐ COPY☐ NOTORIZED
☒ UNCLASSIFIED

PROP

INPUT FORM

NUMBER OF COPIES RECEIVED

1

DESCRIPTION

LTR. TRANS THE FOLLOWING.....

PLANT NAME: BROWNS FERRY #3

ENCLOSURE

LICENSEE EVENT REPORT FOR R.O. # 7618, ON 11-17
76, CONCERNING THE TORUS OXYGEN SENSOR FAILING
TO START DURING TESTING.....

(1 SIGNED CY. RECEIVED)

(2 PAGES)

ACKNOWLEDGED
ACKNOWLEDGEDNOTE: IF PERSONNEL EXPOSURE IS INVOLVED
SEND DIRECTLY TO KREGER/J. COLLINS

FOR ACTION/INFORMATION

SAB 12-21-76

BRANCH CHIEF:	STOLZ
W/3 CYS FOR ACTION	
LIC. ASST.:	LEE
W/ CYS	
ACRS 16 CYS NOT SENT	

CATEGORY-B DOCUMENT
F/INFO ACRS

INTERNAL DISTRIBUTION

<input checked="" type="checkbox"/> REG FILE	
<input checked="" type="checkbox"/> NRC PDR	
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<input checked="" type="checkbox"/> MIPC	
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<input checked="" type="checkbox"/> HOUSTON	
<input checked="" type="checkbox"/> NOVAK/CHECK	
<input checked="" type="checkbox"/> GRIMES	
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<input checked="" type="checkbox"/> KREGER/J. COLLINS	

EXTERNAL DISTRIBUTION

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<input checked="" type="checkbox"/> NSIC:	

CONTROL NUMBER

704
12864

FINED ACES
CATEGORY-B DOCUMENT



Regulatory

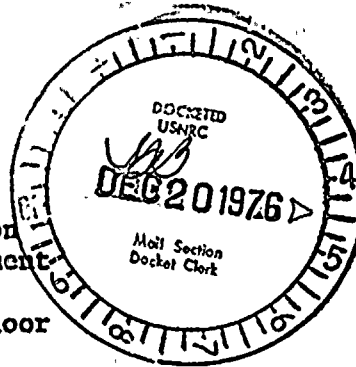
File Cy.

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

December 16, 1976

Mr. Norman C. Moseley, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
230 Peachtree Street, NW., 8th Floor
Atlanta, Georgia 30303



Dear Mr. Moseley:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 3 -
DOCKET NO. 50-296 - FACILITY OPERATING LICENSE DPR-68 - REPORTABLE
OCCURRENCE REPORT BFRO-50-296/7618

The enclosed report is to provide details concerning the torus oxygen sensor that failed to respond properly to calibration gas while performing a surveillance test during startup testing. This report is submitted in accordance with Browns Ferry Technical Specifications Section 6. This event occurred on Browns Ferry Nuclear Plant unit 3.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

H. S. Fox
Director of Power Production

Enclosure (3)

CC (Enclosure):

Director (3)
Office of Management Information and Program Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director (40)

Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

12864



4-5-55



TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

December 16, 1976

Mr. Norman C. Moselay, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
230 Peachtree Street, NW., 8th Floor
Atlanta, Georgia 30303



Dear Mr. Moseley:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 3 -
DOCKET NO. 50-296 - FACILITY OPERATING LICENSE DPR-68 - REPORTABLE
OCCURRENCE REPORT BFRO-50-296/7618

The enclosed report is to provide details concerning the torus oxygen sensor that failed to respond properly to calibration gas while performing a surveillance test during startup testing. This report is submitted in accordance with Browns Ferry Technical Specifications Section 6. This event occurred on Browns Ferry Nuclear Plant unit 3.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

H. S. Fox
Director of Power Production

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Washington, D.C. 20555

Director (40)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

12864

LICENSEE EVENT REPORT

CONTROL BLOCK: 1 1 1 1 6

(PLEASE PRINT ALL REQUIRED INFORMATION)

LICENSEE NAME										LICENSE NUMBER										LICENSE TYPE					EVENT TYPE	
A L B K F 3										0 0 - 0 0 0 0 0 - 0 0										4 1 1 1 1					0 3	
7	8	9								14	15								25	26	27	28	29	30	31	32

CATEGORY		REPORT TYPE	REPORT SOURCE	DOCKET NUMBER						EVENT DATE						REPORT DATE									
CONT		L	L	0 5 0 - 0 2 9 6						1 1 1 7 7 6															
7	8	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80

EVENT DESCRIPTION

12	During startup testing the torus oxygen sensor failed to respond properly to calibra-	80
13	tion gas while performing a surveillance test. The redundant hydrogen sensor was	80
14	operable. This is a repetitive problem. Inspection of sensor and calibration piston	80
15	requires shutdown within 30 days to determine cause. BFRO-50-296/7618	80
16		80

SYSTEM CODE		CAUSE CODE	COMPONENT CODE					PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER			VOLATION	
I E		E	I N S T R U					N	G O 8 0			N	
7	8	9	10	11	12	13	14	15	16	17	18	19	20

CAUSE DESCRIPTION

18	NA	80
19		80
20		80

FACILITY STATUS		% POWER	OTHER STATUS		METHOD OF DISCOVERY		DISCOVERY DESCRIPTION	
B		0 7 1	NA		B		Surveillance Test	
7	8	9	10	11	12	13	14	15

FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE	AMOUNT OF ACTIVITY		LOCATION OF RELEASE	
Z		Z	NA		NA	
7	8	9	10	11	12	13

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION
0 0 0	Z	NA
7	8	9

PERSONNEL INJURIES

NUMBER	DESCRIPTION
0 0 0	NA
7	8

OFFSITE CONSEQUENCES

15	NA	80
----	----	----

LOSS OR DAMAGE TO FACILITY

TYPE	DESCRIPTION
Z	NA
7	8

PUBLICITY

17	NA	80
----	----	----

ADDITIONAL FACTORS

18	NA	80
----	----	----

19	NA	80
----	----	----

NAME: _____

PHONE: _____



TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

December 16, 1976

Mr. Norman C. Moseley, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
230 Peachtree Street, NW., 8th Floor
Atlanta, Georgia 30303

Dear Mr. Moseley:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 3 -
DOCKET NO. 50-296 - FACILITY OPERATING LICENSE DPR-68 - REPORTABLE
OCCURRENCE REPORT BFRO-50-296/7618

The enclosed report is to provide details concerning the torus oxygen sensor that failed to respond properly to calibration gas while performing a surveillance test during startup testing. This report is submitted in accordance with Browns Ferry Technical Specifications Section 6. This event occurred on Browns Ferry Nuclear Plant unit 3.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

H. S. Fox
for H. S. Fox

Director of Power Production

Enclosure (3)

CC (Enclosure):

Director (3)

Office of Management Information and Program Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director (40)

Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

December 16, 1976

Mr. Norman G. Mosely, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
230 Peachtree Street, N.W., 26th Floor
Atlanta, Georgia 30303

Dear Mr. Mosely:

THEMATIC VALLEY AUTHORITY - BROWN HARRY NUCLEAR PLANT UNIT 2 -
SECTION NO. 20-236 - FACILITY OPERATING LICENSE DFR-68 -- REPRODUCTION
CORRECTION SHEET 20-236/7618

The enclosed report is to provide details concerning the turbine
sensor that failed to respond properly to calibration gas while performing
a surveillance test during startup testing. This report is submitted
in accordance with Browns Ferry Technical Specifications Section 6.
This event occurred on Browns Ferry Nuclear Plant Unit 2.

Very truly yours,

THEMATIC VALLEY AUTHORITY

H. S. Fox
Director of Power Production

Enclosure (3)
CC (Enclosure):
Director (3)
Office of Management Information and Program Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director (60)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

LICENSEE EVENT REPORT

CONTROL BLOCK: 1 6

[PLEASE PRINT ALL REQUIRED INFORMATION]

LICENSEE NAME										LICENSE NUMBER										LICENSE TYPE					EVENT TYPE	
A L B R F 3										0 0 - 0 0 0 0 0 - 0 0										4 1 1 1 1					0 3	
7	8	9								14	15								25	26				30	31	32

CATEGORY		REPORT TYPE	REPORT SOURCE	DOCKET NUMBER						EVENT DATE						REPORT DATE												
CONT		L	L	0 5 0 - 0 2 9 6						1 1 1 7 7 6																		
7	8	57	58	59	60	61						68						69						74	75			80

EVENT DESCRIPTION

12	During startup testing the torus oxygen sensor failed to respond properly to calibration gas while performing a surveillance test. The redundant hydrogen sensor was operable. This is a repetitive problem. Inspection of sensor and calibration piston requires shutdown within 30 days to determine cause. BFR0-50-296/7618	80
13		80
14		80
15		80
16		80

SYSTEM CODE		CAUSE CODE	COMPONENT CODE					PRIME COMPONENT SUPPLIER	COMPONENT MANUFACTURER				VOLATION			
I E		E	I N S T R U					N	G 0 8 0				N			
7	8	9	10	11	12				17	43	44				47	48

CAUSE DESCRIPTION

18	NA	80
19		80
20		80

FACILITY STATUS		% POWER	OTHER STATUS		METHOD OF DISCOVERY	DISCOVERY DESCRIPTION			
B		0 7 1	NA		B	Surveillance Test			
7	8	9	10	12	13	44	45	46	80

FORM OF ACTIVITY RELEASED		CONTENT OF RELEASE	AMOUNT OF ACTIVITY		LOCATION OF RELEASE		
Z		Z	NA		NA		
7	8	9	10	11	44	45	80

PERSONNEL EXPOSURES

NUMBER	TYPE	DESCRIPTION				
0 0 0	Z	NA				
7	8	9	11	12	13	80

PERSONNEL INJURIES

NUMBER	DESCRIPTION				
0 0 0	NA				
7	8	9	11	12	80

OFFSITE CONSEQUENCES

15	NA	80
----	----	----

LOSS OR DAMAGE TO FACILITY

TYPE	DESCRIPTION			
Z	NA			
7	8	9	10	80

PUBLICITY

17	NA	80
----	----	----

ADDITIONAL FACTORS

18	NA	80
----	----	----

19	NA	80
----	----	----

NAME: _____

PHONE: _____



TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

December 14, 1976

Mr. Norman C. Moseley, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
230 Peachtree Street, NW., 8th Floor
Atlanta, Georgia 30303

Dear Mr. Moseley:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT UNIT 3 -
DOCKET NO. 50-296 - FACILITY OPERATING LICENSE DPR-68 - REPORTABLE
OCCURRENCE REPORT BFRO-50-296/7619.

The enclosed report is to provide details concerning start circuit 1 of D/G 3D that was found inoperable because of a relay failure in the speed sensing circuit during the performance of a scheduled maintenance test. This report is submitted in accordance with Browns Ferry Technical Specifications Section 6. This event occurred on Browns Ferry Nuclear Plant unit 3.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

H. S. Fox
Director of Power Production

Enclosure (3)

CC (Enclosure):

Director (3)
Office of Management Information and Program Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director (40)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

December 16, 1976

Mr. Norman C. Mosely, Director
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Region II
230 Peachtree Street, N.E., 25th Floor
Atlanta, Georgia 30303

Dear Mr. Mosely:

ENCLOSURE FOR REPORT NO. 50-256/7610
RECEIVED NO. 50-256 - PLANTIVITY OPERATING WITH THE 50-256 - PLANTIVITY
- POWER PLANT REPORT NO. 50-256/7610

The enclosed report is to provide details concerning start circuit 1
of D/O 30 that was found inoperable because of a relay failure in the
speed sensor circuit during the performance of a scheduled maintenance
test. This report is submitted in accordance with your letter
Technical Specifications Section 6. This event occurred on Brown
Berry Nuclear Plant Unit 3.

Very truly yours,

THOMAS WILLY VITTORE

H. E. For
Director of Power Production

Enclosure (3)
CC (Enclosure):
Director (3)
Office of Management Information and Project Control
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Director (4)
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

LICENSEE EVENT REPORT

CONTROL BLOCK:

[PLEASE PRINT ALL REQUIRED INFORMATION]

LICENSEE
NAME

LICENSE NUMBER

LICENSE
TYPE

EVENT
TYPE

01 A L B R F 3 0 0 - 0 0 0 0 0 - 0 0 4 1 1 1 1 0 3

CATEGORY

REPORT
TYPE

REPORT
SOURCE

DOCKET NUMBER

EVENT DATE

REPORT DATE

01 CON'T L L 0 5 0 - 0 2 9 6 1 1 2 6 7 6

EVENT DESCRIPTION

02 During the performance of a scheduled maintenance test, start circuit 1 of D/G 3D was
03 found inoperable because of a relay failure in the speed sensing circuit. The
04 redundant start circuit 2 was operable. The relay was replaced. (BFRO-50-296/7619)
05
06

SYSTEM
CODE

CAUSE
CODE

COMPONENT CODE

PRIME
COMPONENT
SUPPLIER

COMPONENT
MANUFACTURER

VIOLATION

07 E B E R E L A Y X N E 1 6 0 N

CAUSE DESCRIPTION

08 An Electromotive Division model 8327263 relay failed in start circuit 1 speed
09 sensing circuit, preventing the circuit from sensing diesel speed. The relay
10 was replaced and the test in progress was completed.

FACILITY
STATUS

% POWER

OTHER STATUS

METHOD OF
DISCOVERY

DISCOVERY DESCRIPTION

11 B 0 4 5 NA B NA

FORM OF
ACTIVITY
RELEASED

CONTENT
OF RELEASE

AMOUNT OF ACTIVITY

LOCATION OF RELEASE

12 Z Z NA NA

PERSONNEL EXPOSURES

NUMBER

TYPE

DESCRIPTION

13 0 0 0 Z NA

PERSONNEL INJURIES

NUMBER

DESCRIPTION

14 0 0 0 NA

OFFSITE CONSEQUENCES

15 NA

LOSS OR DAMAGE TO FACILITY

TYPE

DESCRIPTION

16 Z NA

PUBLICITY

17 NA

ADDITIONAL FACTORS

18 This was a random failure and no additional action is required.

19

NAME: _____

PHONE: _____

Tennessee Valley Authority
Docket No. 50-296 Browns Ferry Unit 3
License No. DPR-68

REPORTABLE OCCURRENCE REPORT NOS:

RO-296/76-18
76-19

DISTRIBUTION:

→ Don Lanham, ADM

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