

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1)
McGuire Nuclear Station, Unit 1

DOCKET NUMBER (2)

0 5 0 0 0 3 6 9

PAGE (3)

1 OF 0 2

TITLE (4)

Diesel Generator Starts Due to a Distribution System Disturbance

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	3	0	5	8	4	8	4	0	0	6	0	0	0	3	7	0
0	3	0	5	8	4	8	4	0	0	0	4	0	4	8	4	

OPERATING MODE (9)	POWER LEVEL (10)	THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR §: (Check one or more of the following) (11)									
5	0	0	0	20.402(b)	20.406(c)	X	50.73(a)(2)(iv)	73.71(b)			
		20.406(a)(1)(i)	50.38(c)(1)		50.73(a)(2)(v)		73.71(c)				
		20.406(a)(1)(ii)	50.38(c)(2)		50.73(a)(2)(vii)		OTHER (Specify in Abstract below and in Text, NRC Form 356A)				
		20.406(a)(1)(iii)	50.73(a)(2)(i)		50.73(a)(2)(viii)(A)						
		20.406(a)(1)(iv)	50.73(a)(2)(i)		50.73(a)(2)(viii)(B)						
		20.406(a)(1)(v)	50.73(a)(2)(iii)		50.73(a)(2)(x)						

LICENSEE CONTACT FOR THIS LER (12)
NAME
Phillip B. Nardoci, Licensing Engineer

TELEPHONE NUMBER

AREA CODE

7 0 4 3 7 3 7 4 3 2

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) ☒ NO ☐

EXPECTED SUBMISSION DATE (15)

MONTH DAY YEAR

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

Diesel Generators (D/G) 1B, 2A, and 2B experienced an invalid automatic start on March 5, 1984 (D/G 1A was inoperable due to maintenance). The D/Gs started on a black-out signal generated by a momentary power distribution system disturbance when the South Mountain Transmission line experienced a fault.

Unit 1 was in Mode 5 and Unit 2 as in Mode 3 at the time of this occurrence. This incident is attributed to an Unusual Service Condition, due to the power distribution system disturbance.

The blackout signal cleared in less than 1 second, therefore, the D/G's were not loaded. The D/G's were shutdown after operating for approximately 7-9 minutes.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104
EXPIRES 8/31/85

FACILITY NAME (1) McGuire Nuclear Station, Unit 1	DOCKET NUMBER (2) 0 5 0 0 0 3 6 9 8 4 — 0 0 6 — 0 0 0 2 OF 0 2	LER NUMBER (6)			PAGE (3)	
		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

TEXT (If more space is required, use additional NRC Form 365A's) (17)

Diesel Generators (D/G) [EIIS:GEN] 1B, 2A, and 2B experienced an invalid automatic start on March 5, 1984 (D/G 1A was inoperable due to maintenance). The D/Gs started on a blackout signal generated by a momentary power distribution system [EIIS:FK] disturbance when the South Mountain Transmission line experience a fault.

Unit 1 was in Mode 5 and Unit 2 was in Mode 3 at the time of this occurrence. This incident is attributed to an Unusual Service Condition, due to the power distribution system disturbance.

The D/Gs ensure that sufficient power will be available to supply the safety-related equipment for the safe shutdown of the facility. The D/Gs also supply power for the mitigation and control of accident conditions within the facility. Therefore in the event of a loss of offsite power or blackout, the D/Gs will automatically start and subsequently load.

The blackout signal was generated by an undervoltage condition due to line fluctuation when the South Mountain line was isolated (Power Circuit Breakers (PCBs) [EIIS:BRK] 54 and 55 tripped open). The isolation occurred in response to a phase to ground fault on the South Mountain transmission line, which runs between Oconee and McGuire. The D/G will start when the load sequencer receives signals from two out of the three 4160 volt, instantaneous, undervoltage relays [EIIS:RLY]. The nominal setpoint of the undervoltage relays is 3500 volts.

The D/G load sequencers 1B, 2A, and 2B started the respective D/Gs at approximately 0632. The load sequencer has an eight second time delay before beginning a load shed and subsequent loading of the D/G. The time delay confirms the validity of the blackout signal. The phase to ground fault cleared and blackout signal cleared after 0.0049 seconds, therefore; the D/Gs were not loaded.

Diesel Generators 1B, 2A, and 2B were shutdown after it was determined that they weren't required. The D/G's had operated for approximately 7-9 minutes. Power Circuit Breakers 54 and 55 were closed at 0655. D/G 1B, 2A, and 2B performed as designed during this incident and would have been subsequently loaded had this been a valid blackout. The health and safety of the public were not affected by this incident.

DUKE POWER COMPANY

P.O. BOX 33189

CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

April 4, 1984

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

Subject: McGuire Nuclear Station, Units 1 and 2
Docket Nos. 50-369 and 50-370
LER 369/84-06

Gentlemen:

Pursuant to 10 CFR 50.73 Sections (a)(1) and (d), attached is Licensee Event Report 369/84-06 concerning Diesel Generator Starts Due to a Distribution System Disturbance which is submitted in accordance with 50.73(a)(2)(iv). Initial notification of this event was made (pursuant to 50.72 Section (b)(2)(ii)) with the NRC Operations Center via the ENS on March 6, 1984. This event was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

H.B. Tucker / BT

Hal B. Tucker

PBN:dyh

Attachment

cc: Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

Records Center
Institute of Nuclear Power Operations
1100 Circle 75 Parkway, Suite 1500
Atlanta, Georgia 30339

Mr. W. T. Orders
NRC Resident Inspector
McGuire Nuclear Station

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