

LICENSEE EVENT REPORT

EXHIBIT A

CONTROL BLOCK: (1) (PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)

01 N C M G S 1 14 2 15 0 0 - 0 0 0 0 0 - 0 0 25 3 4 1 1 1 1 28 4 31 5 34

CON'T

01 REPORT SOURCE L 80 0 5 0 0 0 3 6 9 81 7 84 0 7 1 2 5 8 3 87 0 8 2 2 8 3 90

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES (10)

02 While in Mode 1, transformer 1B (step up from Unit 1 generator voltage to trans-

03 mission system voltage) auto-tripped due to 2 out of 3 indication of low oil

04 level, resulting in power circuit breakers (PCB) 11 and 12 automatically trip-

05 ping. Loss of Busline 1B violates T.S. 3.8.1.1 which is reportable per T.S.

06 6.9.1.11(b). During the time that Buslines 1B was out redundant Busline 1A

07 was operable, and the two diesel generators were operable. Health and safety

08 of the public were unaffected.

09

SYSTEM CODE E A 11 CAUSE CODE X 12 CAUSE SUBCODE Z 13 COMPONENT CODE C K T B R K 14 COMP. SUBCODE X 15 VALVE SUBCODE Z 16

17 LER/RO 18 REPORT 19 NUMBER 20 8 3 21 1 22 0 6 2 23 1 24 0 3 25 L 26 1 27 0 28 0 29 0 30 0 31 0 32 0 33 0 34 0 35 0 36 0 37 0 38 0 39 0 40 0 41 0 42 0 43 0 44 0 45 0 46 0 47 0 48 0 49 0 50 0 51 0 52 0 53 0 54 0 55 0 56 0 57 0 58 0 59 0 60 0 61 0 62 0 63 0 64 0 65 0 66 0 67 0 68 0 69 0 70 0 71 0 72 0 73 0 74 0 75 0 76 0 77 0 78 0 79 0 80 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS (27)

10 The low oil level relays were presumed to have been accidentally bumped during

11 routine cleaning of the transformer. The relays were reset, but when PCB 12

12 was closed, it immediately tripped due to a wiring design error. Wiring error

13 result of failure to change connection diagrams for a previous modification.

14 The wiring error was corrected, new drawings issued, and the Busline declared

15 operable. Protective covers for transformer relays will be installed.

16 Facility 17 STATUS 18 % POWER 19 OTHER STATUS 20 NA 21 DISCOVERY 22 DESCRIPTION 23 Control Room Alarms

17 ACTIVITY 18 CONTENT 19 RELEASED 20 OF RELEASE 21 AMOUNT OF ACTIVITY 22 LOCATION OF RELEASE 23 NA

18 PERSONNEL EXPOSURES 19 NUMBER 20 TYPE 21 DESCRIPTION 22 NA

19 PERSONNEL INJURIES 20 NUMBER 21 DESCRIPTION 22 NA

20 LOSS OF OR DAMAGE TO FACILITY 21 TYPE 22 DESCRIPTION 23 NA

21 PUBLICITY 22 DESCRIPTION 23 NA

22 ISSUED 23 DESCRIPTION 24 NA

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NUCLEAR PRODUCTION

83 AUG 26 A 8:48
August 22, 1983

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

Subject: McGuire Nuclear Station Unit 1
Docket No. 50-369
LER/RO-369/83-62

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-369/83-62. This report concerns T.S. 3.8.1.1., "As A Minimum, The Following AC Electrical Power Sources Shall Be Operable: a. Two Physically Independent Circuits Between The Offsite Transmission Network and The Onsite Essential Auxiliary Power System,...". This incident was considered to be of no significance with respect to the health and safety of the public.

Very truly yours,

H.B. Tucker

H. B. Tucker

PBN:dyh

Attachment

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

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

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

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DUKE POWER COMPANY
McGUIRE NUCLEAR STATION
REPORTABLE OCCURRENCE REPORT NO. 369/83-62

REPORT DATE: August 22, 1983
FACILITY: McGuire Unit 1, Cornelius, N. C.
IDENTIFICATION: Loss of Busline 1B

DESCRIPTION: On July 25, 1983, transformer 1B auto-tripped due to 2 of 3 indication of low oil level. (Transformer 1B is the step up transformer from Unit 1 generator voltage to the transmission system voltage.) Accordingly, Power Circuit Breakers (PCBs) 11 and 12 (switchyard tie-in breakers to the transmission system) were automatically tripped. These events occurred as personnel conducting routine cleaning of the transformer opened the control cabinet to de-energize the transformer fans. It is presumed that the low oil level relays, which are mounted in an exposed location on the back of the cabinet door, were accidentally bumped.

The low levels in transformer 1B were reset. When an attempt to close PCB 12 was made, it immediately tripped. Busline 1B was subsequently declared inoperable. A wiring design error in the breaker trip circuitry, which would not allow the trip signal to clear, was diagnosed. The wiring was corrected and PCB 12 was closed. Unit 1 was in Mode 1 at 10% power at the time of the occurrence.

The trip of transformer 1B is attributed to Design Deficiency, with a contributing Personnel Error. The failure of the PCB 12 trip signal to clear is attributed to Design Deficiency.

EVALUATION: During the routine cleaning of the exterior of transformer 1B, personnel opened the control cabinet to shutdown the transformer fans. Oil level relays, which provide 2 of 3 trip indication to the control room, are located on the backside of the door, approximately 3 feet above the ground. It is assumed that the personnel who opened the cabinet accidentally bumped into these relays, closing a hinged mechanism and allowing some normally open contacts to close. As a result, transformer 1B tripped on 2 of 3 indicated low oil levels. This trip in turn caused the switchyard protective relay system (TRI-CAP) to trip power circuit breakers (PCBs) 11 and 12. These PCBs, which are located away from the plant site, connect the 230 KV bus from McGuire 1 to the transmission system.

The low oil level indication in transformer 1B was reset and the signals cleared. When PCB 12 was closed, it immediately tripped. Investigation revealed that the trip signal to PCB 12 could not clear. A wiring change implemented in August 1980, which was intended to change the state of some normally energized relays to normally de-energized, failed to change the actuating contact from normally closed to normally open. This occurred because the connection diagrams had not been changed, although the logic diagrams were changed.

This wiring change was not considered to be a modification to a plant system, since plant boundaries have been defined to include the transmission lines to the

switchyard and the PCBs (not the control circuitry for the PCBs). Therefore, the plant retest program did not apply. Retest of the change was restricted to the normal checkout performed following the work. The wiring was appropriately verified to conform to the incorrect connection diagram.

A periodic monthly test, "Bus Lines Protective Relay System Test" verifies that a trip signal generated at the plant is received at the switchyard, and vice versa. However, it does not verify the actuation of the trip signal. No retest of the trip function was ever performed and no previous actuation ever occurred which would have revealed the wiring problem.

The wiring was corrected later in the day of July 25, and PCB 12 was successfully closed.

CORRECTIVE ACTION: The low oil level signals on transformer 1B were reset; and a wiring change was made to correct the TRI-CAP circuitry. New drawings were issued to reflect the wiring change. Plexiglass covers will be installed over the exposed low oil level relays in transformer cabinets 1A and 1B. These covers will preclude accidental closing of the hinge mechanism.

SAFETY ANALYSIS: Buslines 1B is one of two offsite power distribution systems which are designed to ensure that incoming offsite power is available to maintain the unit during an accident or during shutdown. Busline 1A was operable during this time. Had a complete loss of offsite power occurred (i.e. trip of busline 1A), the two redundant diesel generators were operable and capable of providing power. Therefore, no significant degradation of plant safety occurred, and the health and safety of the public were unaffected.