

NRC FORM 388 (12-81)		U.S. NUCLEAR REGULATORY COMMISSION LICENSEE EVENT REPORT										APPROVED BY OMB 3150-0011 EXPIRES 4-30-82							
CONTROL BLOCK		(PLEASE PRINT OR TYPE ALL REQUIRED INFORMATION)																	
01		N C M G S 2 0 0 - 0 0 0 0 0 - 0 0 3 4 1 1 1 1 4 5																	
7		15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40																	
CONT		REPORT SOURCE L 0 5 0 0 0 3 7 0 0 5 2 6 8 3 0 7 0 6 8 3																	
7		40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60																	
02		EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10																	
7		On 5/26/83 thru 6/10/83, while in Mode 3 (5/26/83) and Mode 1 (5/29-6/10/83),																	
03		fire detection zones EFA 179, 189, 182, 81, 102, 174 and 163 were declared in-																	
7		operable due to invalid alarms. These violate T.S.3.3.3.7 which is reportable																	
04		per T.S. 6.9.1.11(b) and similar to RO's 369/83-25, 83-33 and 370/83-13. Fire																	
7		watches and containment temperature monitoring were established during the times																	
05		the zones were inoperable. Health and safety of the public were unaffected.																	
7		06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40																	
09		SYSTEM CODE CAUSE CODE CAUSE SUBCODE COMPONENT CODE COMP SUBCODE VALVE SUBCODE																	
7		A B 11 X 12 Z 13 X X X X X X 14 Z 15 Z 16																	
17		EVENT YEAR 8 3 SEQUENTIAL REPORT NO. 0 2 4 OCCURRENCE CODE 0 3 REPORT TYPE L																	
7		21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60																	
10		ACTION TAKEN FUTURE ACTION EFFECT ON PLANT SHUTDOWN METHOD HOURS ATTACHMENT SUBMITTED NPD-4 FORM SUB PRIME COMP. SUPPLIER COMPONENT MANUFACTURER																	
7		X 18 Z 19 Z 20 Z 21 0 0 0 0 Y 23 N 24 L 25 X 9 9 9																	
10		CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27																	
7		Zone 179's invalid alarm was apparently spurious and the alarm was reset. Zones																	
11		189, 81, 174, and 163 alarms were apparently caused by dirt accumulation in their																	
7		smoke detectors (Firemark 9620 ionization type). The detectors were cleaned.																	
12		Zone 182's alarm was caused by a loose contact on the back of a Firemark detector.																	
7		The connection was repaired. Zone 102's alarm resulted from a tripped rate of																	
13		rise detector, which was replaced with a higher capacity detector.																	
7		FACILITY STATUS 1/2 POWER OTHER STATUS 30 METHOD OF DISCOVERY DISCOVERY DESCRIPTION 32																	
15		B 28 0 3 1 29 Modes 3 and 1 A 31 Control Room Alarms																	
7		10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60																	
16		ACTIVITY CONTENT RELEASED OF RELEASE AMOUNT OF ACTIVITY 35 LOCATION OF RELEASE 36																	
7		Z 33 Z 34 N/A N/A																	
17		PERSONNEL EXPOSURES NUMBER TYPE DESCRIPTION 39																	
7		0 0 0 37 Z 38 N/A																	
18		PERSONNEL INJURIES NUMBER DESCRIPTION 41																	
7		0 0 0 40 N/A																	
19		LOSS OF OR DAMAGE TO FACILITY TYPE DESCRIPTION 43																	
7		Z 42 N/A																	
20		PUBLICITY ISSUED DESCRIPTION 45																	
7		N 44 N/A																	
21		NAME OF PREPARER PHONE																	
7		Phillip B. Nardoci (704) 373-7432																	

USNRC REGION 3
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83 JUL 12 49:23

July 6, 1983

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

Re: McGuire Nuclear Station Unit 2
Docket No. 50-370

Dear Mr. O'Reilly:

Please find attached Reportable Occurrence Report RO-370/83-24. This report concerns T.S. 3.3.3.7, "As a minimum, the fire detection instrumentation for each fire detection zone shown in Table 3.3-11 shall be operable". 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 / BT
Hal B. Tucker

PBN:jfw
Attachments (2)

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

Mr. W. T. Orders
NRC Resident Inspector
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. 370/83-24REPORT DATE: July 6, 1983FACILITY: McGuire Unit 2, Cornelius, NCIDENTIFICATION: Fire Detection Zones 81, 102, 163, 174, 179, 182, and 189
Declared InoperableDESCRIPTION: The following Unit 2 fire detection zones (EFA), required by Technical Specification 3.3.3.7, were declared inoperable on the dates indicated due to invalid alarms:

<u>Zone</u>	<u>Declared Inoperable</u>	<u>Operating Mode</u>
EFA 179	5/26/83	3
EFA 189	5/29/83	1,10% power
EFA 182	5/30/83	1,20% power
EFA 81	6/01/83	1,30% power
EFA 102	6/02/83	1,31% power
EFA 174	6/08/83	1,26% power
EFA 163	6/08/83	1,30% power
EFA 102	6/10/83	1,30% power

These incidents are a result of Component Failure/Malfunction and Unusual Service Conditions.

Fire watch patrols and containment temperature monitoring were established as required by the Action Statement of Technical Specification 3.3.3.7.

EVALUATION: EFA179 was declared inoperable due to an alarm verified to be invalid. The trouble alarm cleared when the EFA was reset at data gathering panel (DGP)38. This failure is attributed to Component Failure/Malfunction because the alarm was apparently spurious. EFA179 was declared operable on 5/26/83.

EFA's 189, 81, 174, and 163 were declared inoperable due to alarms verified to be invalid. The alarms were apparently caused by dirt accumulation in five Firemark 9620 ionization type fire detectors (2 in EFA189, one in each other zone). Each of the detectors was cleaned and returned to service. The alarms were then successfully cleared. These failures are attributed to Component Failure/Malfunctions. EFA189 was declared operable on 5/30/83, EFA81 on 6/1/83, and EFA174 and 163 on 6/20/83.

The alarm from EFA182 was caused by a loose contact on the back of a Firemark 9620 ionization type fire detector. The loose connection was repaired. After functionally verifying that the EFA annunciator would alarm the zone was placed back in service. This failure is attributed to Component Failure/Malfunction. EFA182 was declared operable on 6/1/83.

The alarms of EFA102 were received when a rate of rise detector (Douglas Randall P/N 576082, 135° rate of rise/fixed temperature) had tripped. On June 2, 1983, the rate of rise detector was replaced with a new detector of the same specifications. The EFA was cleared at DGP11 and returned to service on 6/6/83. On

June 10, 1983, EFA102 was found in alarm again because of a tripped rate of rise detector. Temperature measurements were taken in the area, and the area around the detector was determined to be approximately 135°F. There had been a recurring problem with this fire zone so the rate of rise detector was replaced with a Honeywell T4057A1015, 200° rate of rise/fixed temperature detector. These incidents are attributed to Unusual Service Conditions because the area temperature was hotter than expected. EFA102 was declared operable on 6/10/83.

CORRECTIVE ACTIONS: Hourly fire watch patrols and hourly containment temperature monitoring were established as necessary. Problems with the affected zones were investigated and corrected as detailed in the evaluation, and the fire zones returned to service. The fire zones have remained operable since being restored.

SAFETY ANALYSIS: The fire detection instrumentation of EFA's 179, 81, 102, 174, and 163 ensures that adequate warning capability is available for prompt detection of fires. EFA's 189 and 182 provide early warning capability as well as actuation of fire suppression systems. Detection and suppression of fires reduces the potential for damage to safety-related equipment. Fire watch patrols and area temperature monitoring were initiated as required by Technical Specification 3.3.3.7. These incidents did not interfere with the ability to maintain the plant in a safe condition.

The health and safety of the public were not affected by these incidents.