

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

CON'T

REPORT SOURCE

DOCKET NUMBER

EVENT DATE

REPORT DATE

During steady state operation the plant process computer which provides indication of linear heat rate using incore detectors was determined to be inoperable and power was reduced to 86% in accordance with action b for the Excore Detector Monitoring System limits of Technical Specifications section 3.2.1. The computer had been inoperable for nearly 5 hours and thus the plant had been operating for more than 1 hour in excess of the limits for Excore Detector Monitoring of Section 3.2.1. No other similar occurrences.

SYSTEM CODE I I F 11		CAUSE CODE E 12		CAUSE SUBCODE A 13		COMPONENT CODE I N S T R U 14		COMP. SUBCODE X 15		VALVE SUBCODE Z 16	
7 8		9 10		11 12		13 18		19 20		21 22	
LER/RO REPORT NUMBER 17		EVENT YEAR 8 3 21 22		SEQUENTIAL REPORT NO. 0 0 9 24 26		OCCURRENCE CODE 0 1 28 29		REPORT TYPE T 30		REVISION NO. 0 32	
ACTION TAXEN H 18		FUTURE ACTION G 19		EFFECT ON PLANT B 20		SHUTDOWN METHOD Z 21		HOURS 0 0 1 1 22 37 40		ATTACHMENT SUBMITTED Y 23 41	
33 34		35 36		37 40		41 42		43 44		45 47	
NPRD-4 FORM SUB Y 24 42		PRIME COMP. SUPPLIER A 25 43		COMPONENT MANUFACTURER I 0 1 1 0 26 44 47							

1 0 During troubleshooting the computer was returned to normal operation and the exact

1 1 cause of failure was a circuit card, IBM Part No. 5800199. Initial failure went

1 2 undetected because several normal computer indications were still being displayed.

Total time out of service was 11 hours, 15 minutes.

1 4
7 8 9
FACILITY STATUS (28) 1 0 0 (29) NA (30) METHOD OF DISCOVERY (31) A (32) Incidental Observation
7 8 9 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 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
ACTIVITY CONTENT RELEASED OF RELEASE (33) Z (34) Z (35) NA (36) LOCATION OF RELEASE (36) NA
7 8 9 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 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
PERSONNEL EXPOSURES NUMBER (37) 0 0 0 (38) Z (39) NA
7 8 9 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 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
PERSONNEL INJURIES NUMBER (40) 0 0 0 (41) NA
7 8 9 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 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
LOSS OF OR DAMAGE TO FACILITY TYPE (42) Z (43) NA
7 8 9 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 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
PUBLICITY (44) 2 0 (45) NA
7 8 9 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 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
ISSUED (44) 2 0 (45) NA
7 8 9 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 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100
NRC USE ONLY
68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

NAME OF PREPARER

R. W. Bates

PHONE 203-447-1791 Ext. 4420

ATTACHMENT TO LER 83-09/1T-0
NORTHEAST NUCLEAR ENERGY COMPANY
MILLSTONE NUCLEAR POWER STATION - UNIT 2
PROVISIONAL LICENSE NUMBER DPR-65
DOCKET NUMBER 50-336

Identification of Occurrence

The plant process computer was determined to be inoperable as evidenced by its failure to update displayed values.

Conditions Prior to Occurrence

Prior to the occurrence the plant was operating at a steady state power level of 100 percent.

Description of Occurrence

During steady state operation on March 26, 1983, the plant process computer which provides indication of linear heat rate with incore detectors was determined to be inoperable. Technical Specifications Section 3.2.1 requires that the linear heat rate be monitored by the incore detector monitoring system or by the excore detector monitoring system. Power level was reduced to 86% in accordance with action b for the Excore Detector Monitoring System power level limits.

Apparent Cause of Occurrence

While following the troubleshooting procedures the computer began functioning normally. The exact cause of the failure was traced to a circuit card, IBM Part No. 5800199, which was replaced and the computer was declared operable again.

Analysis of Occurrence

A review of the computer failure showed that it had been out of service for nearly 5 hours with the last update appearing at 1546 hours and initial discovery at 2100 hours, 3/26/83.

The failure went unnoticed because several normal computer indications were still being displayed as though they were current values. Computer indications are normally updated every 15 seconds. The normal indication of a malfunctioning computer is a blank screen or change in the displayed status code "A-D-U" to show an asterisk in place of "A" or "D" when either analog or digital portions of the computer fail. In this occurrence, the "A-D-U" code remained on display and the last updated list of parameters and their values and CEA position, all remained on display.

The control operators on duty at the time failed to note that the Balance of Plant (BOP) log and the Alarm Typer printouts had not been updated either. Both of these computer controlled indications update frequently. The BOP log updates on an hourly basis, on the hour, to provide hard copy data for certain fixed parameters. The Alarm Typer will provide a printout on an irregular basis, depending entirely on when computer monitored parameters reach alarm setpoint conditions.

Analysis of Occurrence (Con't)

Plant conditions prior to the failure and prior to the discovery were stable steady state and had been so for the previous 24 hours. The main plant annunciator system was in normal operation as was the Reactor Protection System and the Engineered Safety Features System. As a result there were no probable consequences.

To prevent a recurrence of this type all licensed supervisory personnel have been briefed on the need to frequently monitor computer displays for up-to-date information and how to determine operability status.

In addition a logging requirement has been incorporated to insure verification of computer updating has occurred. The engineering department will pursue a more valid loss of computer alarm scheme.