

LICENSEE EVENT REPORT (LER)

FACILITY NAME (1) Millstone Nuclear Power Station Unit 1										DOCKET NUMBER (2) 0 5 0 0 0 2 4 5					PAGE (3) 1 OF 03						
TITLE (4) Loss of Normal Power and Failure of Gas Turbine																					
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)								
11	21	85	85	027	00	12	19	85					0 5 0 0 0								
OPERATING MODE (9) R		THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR § (Check one or more of the following) (11)																			
POWER LEVEL (10) 10		20.402(b)				20.405(c)				50.73(a)(2)(iv)				73.71(b)							
		20.405(a)(1)(i)				50.36(c)(1)				50.73(a)(2)(v)				73.71(c)							
		20.405(a)(1)(ii)				50.36(c)(2)				50.73(a)(2)(vii)				OTHER (Specify in Abstract below and in Text, NRC Form 366A)							
		20.405(a)(1)(iii)				50.73(a)(2)(i)				50.73(a)(2)(viii)(A)											
		20.405(a)(1)(iv)				50.73(a)(2)(ii)				50.73(a)(2)(viii)(B)											
		20.405(a)(1)(v)				50.73(a)(2)(iii)				50.73(a)(2)(x)											
LICENSEE CONTACT FOR THIS LER (12)																					
NAME David J. Yapchanyk, Engineer X4428										TELEPHONE NUMBER AREA CODE 203 447-1791											
COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13)																					
CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPPDS	CAUSE	SYSTEM	COMPONENT	MANUFACTURER	REPORTABLE TO NPPDS		
X	EK	ENGINE	080	N																	
SUPPLEMENTAL REPORT EXPECTED (14)																					
YES (If yes, complete EXPECTED SUBMISSION DATE)										X NO							EXPECTED SUBMISSION DATE (15)		MONTH	DAY	YEAR

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

On November 21, 1985 at 1315 hours while trip testing breakers in the switchyard a loss of normal power occurred. At the time of the event the unit was in the refuel mode with no core alterations in progress. A regional test technician was performing trip testing in the switchyard which was intended to verify the circuit integrity of the control schemes. As a result of the tripping sequence the technician used, a loss of normal power occurred when the main transformer was divorced from the grid. The gas turbine attempted to respond to the LNP but failed to start. Operations personnel followed ONE 503B and conservatively declared an Alert.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

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		YEAR	SEQUENTIAL NUMBER	REVISION NUMBER			
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TEXT (If more space is required, use additional NRC Form 366A's) (17)

On November 21, 1985 at 1315 hours while trip testing breakers in the switchyard a LNP occurred. At the time of the event the unit was in the refuel mode with no core alterations in progress. The emergency diesel generator was tagged out for repairs and the emergency gas turbine generator was available for service. Station service was being provided by way of the normal station service transformer (15G-1S) through a backfeed of the main transformer (15G-1X). The main transformer was connected to the switchyard through 345 KV circuit breakers 15G-5T-2 and 15G-6T-2. The reserve station service transformer (15G-21S) was out of service for maintenance activities. The 23 KV Flanders Line was available for service.

A regional test technician from Madison was performing trip tests in the switchyard on the trip circuits of both 345 KV breakers, one breaker at a time. The trip tests were intended to verify the circuit integrity of the control schemes after recent modifications made as a part of the Severe Line Outage Detection Project. The technician tripped the 6T-2 open and, in an effort to limit the number of breaker operations, elected to leave the breaker open and trip the remaining protective relays into the breaker lockout relay. The technician proceeded with the remaining trips for the 6T breaker including the 6T-2 breaker failure scheme which trips the 5T-2 breaker. This resulted in the loss of normal power as the main transformer was now divorced from the grid.

Operations personnel responded rapidly. The plant configuration for the refueling outage prevented an automatic initiation of the loss of normal power (LNP) logic. Recognizing this, Operations personnel satisfied the logic by immediately opening the Normal Station Services Transformer (NSST) 4160 volt supply breaker to buses 14A, 14B, 14C and 14D. At approximately the same time (60 seconds into the event) the 5T-2 breaker was closed by the switchyard technician and power was restored to the NSST. Operations personnel chose to permit the gas turbine generator to respond to the LNP initiation rather than immediately restore station service via the NSST. Upon observing the gas turbine failure to start, power was promptly restored via the NSST to 4160 volt buses A, C, and D. All other essential power supplies and equipment were restored in accordance with operations procedure ONP 503B, "Loss of All Station AC Power (LNP)".

Initial notification activated the Station Emergency Plan by declaring an Alert. Although conservatively classified as an LNP it should be emphasized off-site power was available to the unit at all times through both the normal station services transformer and the 23 KV Flanders Line. While perhaps not technically required because off-site power remained available, the decision was made to be conservative and declare the Alert.

LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/86

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			YEAR	SEQUENTIAL NUMBER	REVISION NUMBER		

TEXT (If more space is required, use additional NRC Form 366A's) (17)

The emergency gas turbine generator was immediately declared inoperable. Maintenance efforts were initiated to replace several air start system and generator components. The unit has since been repaired and returned to operable status.

The likelihood of this event is probable only during a refuel outage as the unit has selectively taken various power supplies and emergency generator(s) out of service for repair. This likelihood is further compounded by the testing and/or surveillances being conducted on any power supplies or equipment remaining in service. These efforts are conducted within the constraints of safety Technical Specifications and are scheduled so as to minimally impact outage duration without any compromise of plant safety. This configuration and the sequence of events which followed could not have occurred during power operation. Therefore station staff personnel are of the position there are no practical administrative controls necessary which could preclude the recurrence of this event.

Operator response to this event was prompt. Shift personnel assessed plant conditions effectively and recovery was conducted in accordance with procedures expeditiously. We conclude therefore, that consideration for revision to either operator training or operating procedures is not needed at this time.

NORTHEAST UTILITIES



THE CONNECTICUT LIGHT AND POWER COMPANY
WESTERN MASSACHUSETTS ELECTRIC COMPANY
HOLYOKE WATER POWER COMPANY
NORTHEAST UTILITIES SERVICE COMPANY
NORTHEAST NUCLEAR ENERGY COMPANY

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December 19, 1985

MP-8520

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

Reference: Facility Operating License No. DPR-21
Docket No. 50-245
Licensee Event Report 85-027-00

Gentlemen:

This letter forwards the Licensee Event Report 85-027-00 required to be submitted within thirty (30) days pursuant to the requirements of 10CFR50.73.

Yours truly,

NORTHEAST NUCLEAR ENERGY COMPANY

A handwritten signature in dark ink, appearing to read 'Wayne D. Romberg', written over a horizontal line.

Wayne D. Romberg
Station Superintendent
Millstone Nuclear Power Station

WDR/DJY:mo

Attachment: LER 85-027-00

cc: Dr. T. E. Murley, Region I

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