

LICENSEE EVENT REPORT (LER)

| | | | | | | | | | | | | | | | | |
|--|--------|-------------------|---|--------------------|-----------------|-------------------|-----------------|-----------|----------------|--|--|-------------------------------|------------------|--|-----|------|
| FACILITY NAME (1) Millstone Point Unit 2 | | | | | | | | | | DOCKET NUMBER (2) 0 5 0 0 0 3 3 6 1 | | | | PAGE (3) 1 OF 0 2 | | |
| TITLE (4) "C" Charging Pump Cracked Block | | | | | | | | | | | | | | | | |
| 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 8 | 2 2 | 8 5 | 8 5 | 0 1 3 | 0 0 | 0 9 | 2 0 | 8 5 | N/A | | | | 0 5 0 0 0 | | | |
| OPERATING MODE (9) 1 | | | THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR 5. (Check one or more of the following): (11) | | | | | | | | | | | | | |
| POWER LEVEL (10) 1 0 0 | | 30.402(b) | | | | 30.405(a) | | | | 30.73(a)(2)(iv) | | | | 73.71(b) | | |
| | | 30.405(a)(1)(i) | | | | 30.30(a)(1) | | | | 30.73(a)(2)(v) | | | | 73.71(a) | | |
| | | 30.405(a)(1)(ii) | | | | 30.30(a)(2) | | | | 30.73(a)(2)(vi) | | | | Y OTHER (Specify in Abstract below and in Text, NRC Form 305A) | | |
| | | 30.405(a)(1)(iii) | | | | 30.73(a)(2)(i) | | | | 30.73(a)(2)(vii)(A) | | | | Information | | |
| | | 30.405(a)(1)(iv) | | | | X 30.73(a)(2)(ii) | | | | 30.73(a)(2)(vii)(B) | | | | | | |
| | | 30.405(a)(1)(v) | | | | 30.73(a)(2)(iii) | | | | 30.73(a)(2)(x) | | | | | | |
| LICENSEE CONTACT FOR THIS LER (12) | | | | | | | | | | | | | | | | |
| NAME Steve Stadnick X4427 | | | | | | | | | | TELEPHONE NUMBER | | | | | | |
| | | | | | | | | | | AREA CODE 2 0 3 | | 4 1 4 7 - 1 7 9 1 | | | | |
| COMPLETE ONE LINE FOR EACH COMPONENT FAILURE DESCRIBED IN THIS REPORT (13) | | | | | | | | | | | | | | | | |
| CAUSE | SYSTEM | COMPONENT | MANUF. TUNER | REPORTABLE TO NPDs | | CAUSE | SYSTEM | COMPONENT | MANUF. TUNER | REPORTABLE TO NPDs | | | | | | |
| B | C B | P | G 0 4 5 | Y | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | |
| SUPPLEMENTAL REPORT EXPECTED (14) | | | | | | | | | | | | EXPECTED SUBMISSION DATE (15) | | MONTH | DAY | YEAR |
| X YES (If yes, complete EXPECTED SUBMISSION DATE) | | | | | | | | | | | | NO | | 0 8 | 3 0 | 8 6 |

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

On 8/22/85 the plant was at 100% power. The "C" Charging Pump had been removed from service due to packing leaks. During the maintenance evolution a dye penetrant inspection revealed a cracked block. The pump block was replaced with a spare. This is the fourth cracked charging pump block discovered at Millstone Point Unit 2. Work is in progress to determine a method for precluding future pump block failures.

There are no safety implications as a result of this event as two (2) charging pumps were always available for service. Similar events: LER 82-36.

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LICENSEE EVENT REPORT (LER) TEXT CONTINUATION

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED OMB NO. 3150-0104

EXPIRES: 8/31/85

FACILITY NAME (1)

DOCKET NUMBER (2)

LER NUMBER (8)

PAGE (3)

Millstone Point Unit 2

0 5 0 0 0 3 3 6

YEAR

SEQUENTIAL

REVISION

NUMBER

NUMBER

8 5

0 1 3

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0 2

OF

0 2

TEXT (If more space is required, use additional NRC Form 388A's) (17)

On 8/20/85 the plant was at 100% power and the "C" Charging Pump was identified as having packing leaks. The pump was removed from service for maintenance. On 8/22/85 during maintenance/inspection of the pump, a dye penetrant inspection of the block revealed a crack. The dye penetrant inspection was instituted as a corrective action preventative maintenance item after previous block failures, Reference LER 82-36.

The block was replaced with a spare from the warehouse and the pump was returned to service on 8/25/85. This is the fourth reported cracked block at Millstone Point Unit 2. The method of failure appears to be high internal stresses (inherent in this type of pump) causing cracks to initiate at sub-surface inclusions. In the first two (2) instances of cracking in the pump blocks, the blocks were destructively analyzed by an independent vendor. This analysis revealed sub-surface inclusions in the area of crack initiation. While the "C" pump has not been destructively analyzed it is believed that similar type inclusions caused the crack described in this event. This conclusion is made since this pump is one of three originally supplied by APV GAULIN INC. Note: Pumps "A" and "B" had similar cracking problems reported in LER 82-36. In order to establish that inadequate Net Positive Suction Head (NPSH) was not a contributing factor to the crack problem, an engineering study was performed. This study concluded that adequate NPSH was available.

Work is in progress to determine methods to preclude pump block failures. Until this study is completed, adequate methods are in place to monitor pump failure/leakage. As a method of early crack detection, dye penetrant inspections are performed on the blocks each time they are removed from service for packing replacement. Also, the first indication of a problem with a pump is increased unidentified leakage. At no time did the leakage rate exceed the Technical Specification limit of one (1) GPM.

During all cases of charging pump cracking two (2) pumps were always operable as required by the Units Technical Specifications.

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

Reference: Facility Operating License No. DPR-65
Docket No. 50-336
Reportable Occurrence RO 50-336/85-013-00

Gentlemen:

This letter forwards the Licensee Event Report 85-013-00 required to be submitted within thirty (30) days pursuant to paragraph 50.73 (a) (2) (ii), reporting a condition where a crack was discovered in a major component.

Yours truly,

NORTHEAST NUCLEAR ENERGY COMPANY

Wayne D. Romberg

Wayne D. Romberg
Station Superintendent
Millstone Nuclear Power Station

WDR/SLS:mo

Attachment: LER RO 50-336/85-013-00

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

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