

## LICENSEE EVENT REPORT

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

C T M N S 2 0 0 - 0 0 0 0 0 - 0 0 4 1 1 1 1 4 5

LICENSEE CODE 14 15 LICENSE NUMBER 25 26 LICENSE TYPE 36 37 38 39 40

CONT: 0 1

REPORT SOURCE: L 0 5 0 0 0 3 3 6 0 8 1 1 8 3 0 8 2 6 8 3 0

DOCKET NUMBER 60 61 EVENT DATE 68 69 REPORT DATE 81

EVENT DESCRIPTION AND PROBABLE CONSEQUENCES 10

2 Underwater camera inspection of spent fuel assemblies identified 15

3 broken fuel assembly hold-down springs. In addition to the broken

4 springs, severe fretting was identified on the top nozzle

5 posts of a number of Westinghouse manufactured fuel assemblies.

6 The fretting is due to interaction of the top nozzle post with the

7 hold-down springs.

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SYSTEM CODE: R C 1

CAUSE CODE: B 12

CAUSE SUBCODE: A 13

COMPONENT CODE: F U E L X X 4

COMP SUBCODE: Z 15

VALVE SUBCODE: Z 16

EVENT YEAR: 8 3

SEC. 1 A. REPORT NO.: 0 2 5

OCCURRENCE CODE: 0 1

REPORT TYPE: T

REVISION NO.: 0

ACTION TAKEN: X 18

FUTURE ACTION: X 19

EFFECT ON PLANT: C 20

SHUTDOWN METHOD: Z 21

HOURS: 0 0 0 0

ATTACHMENT SUBMITTED: Y 23

NRC-4 FORMULAR: N 24

PRIME COMP. SUPPLIER: X 25

COMPONENT MANUFACTURER: W 1 2 0

CAUSE DESCRIPTION AND CORRECTIVE ACTIONS 27

3 The reasons for the failure of the springs is not known. The

4 reason for the fretting of the end posts is not known. Both

5 problems are still under investigation.

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FACILITY STATUS: H 28

% POWER: 0 0 0 0 29

OTHER STATUS: NA 30

METHOD OF DISCOVERY: 31 Routine Inspection

DISCOVERY DESCRIPTION: 32

ACTIVITY CONTENT RELEASED OF RELEASE: Z 33

AMOUNT OF ACTIVITY: NA 35

LOCATION OF RELEASE: NA 36

PERSONNEL EXPOSURES: 0 0 0 37

TYPE: Z 38

DESCRIPTION: 39

PERSONNEL INJURIES: 0 0 0 40

DESCRIPTION: 41

LOSS OF OR DAMAGE TO FACILITY: Z 42

DESCRIPTION: 43

PUBLICITY: N 44

DESCRIPTION: 45

NAME OF PREPARER: J. Parillo

NRC USE ONLY

8309070009 830826  
PDR ADOCK 05000336  
S PDR

IF 22

(203) 477-1791 Ext. 4419

SUPPLEMENT TO LER RO-50-366/83-25/01-T  
FACILITY OPERATING LICENSE DPR-65  
DOCKET NO. 50-336

During spent fuel inspection of Westinghouse manufactured fuel on August 11, 1983, severed hold-down springs were discovered on the upper end fitting. Currently the entire core is in the spent fuel pool while work is being done on the thermal shield in Containment.

Examination of all 144 irradiated Westinghouse manufactured fuel assemblies has shown 15 broken hold-down springs. Fifteen fuel assemblies each have one (1) broken spring.

Eight (8) of the broken springs were in once burned "G" fuel assemblies. Seven (7) of the broken springs were in twice burned "F" assemblies. Each of the springs exhibited a brittle type fracture.

In addition to the broken springs, the stainless steel top nozzle posts of Westinghouse fuel assemblies exhibited a varying degree of fretting due to interaction with the inconel springs. This fretting has been found in both assemblies with and without broken springs. Fuel assemblies with broken springs do not necessarily exhibit fretting. The fretting was severe on some top nozzle posts.

The 15 broken springs show a correlation with location in the reactor core. All posts with a broken spring were at some time up against the reactor core shroud. No correlation has been found with the top nozzle post fretting.

Examination of the 51 of 72 Batch "E" Combustion Engineering manufactured discharge fuel assemblies (three times burned  $33,000 \sim \frac{\text{MWD}}{\text{MT}}$ ) has shown no broken springs and very little fretting.

Some slight fretting is present on the center post but is has essentially no depth. The 21 "E" fuel assemblies not examined were all located only in the core interior and therefore were not examined.

There is no detectable correlation between the broken springs or fretted fuel assemblies with the fail fuel assemblies referenced in LER 83-19/3L-1.

Further information will be provided as it becomes available.

# NORTHEAST UTILITIES



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

P.O. BOX 270  
HARTFORD, CONNECTICUT 06101  
(203) 666-6911

August 26, 1983

MP-5332 \*

Dr. Thomas E. Murley  
Regional Administrator, Region I  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, Pennsylvania 19406

Reference: Facility Operating License DPR-65  
Docket No. 50-336  
Reportable Occurrence RO-50-336/83-25/01-T

Dear Dr. Murley:

This letter forwards Licensee Event Report 83-25/01-T required to be submitted within fourteen days pursuant to the requirements of Millstone Unit 2 Appendix A Technical Specifications, Section 6.9.1.8.i, discovery of conditions not specifically considered in the Safety Analysis Report or Technical Specifications that require remedial action or corrective measures to prevent the existence or development of an unsafe condition. An additional three copies of the report are enclosed.

Yours truly,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: E. J. Mroczka  
Station Superintendent  
Millstone Nuclear Power Station

*R. J. Herbert*  
BY: R. J. Herbert  
Station Services Superintendent  
Millstone Nuclear Power Station

EJM/JP:ejl

Attachment: LER RO-50-336/83-25/01-T

cc: Director, Office of Inspection and Enforcement Washington,  
D.C. (30)  
Director, Office of Management Information and Program  
Control, Washington, D.C. (3)  
U.S. Nuclear Regulatory Commission, c/o Document Management  
Branch, Washington, D.C. 20555

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