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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June 11, 1985

Docket No. 50-336
B11568

Director of Nuclear Reactor Regulation
Attn: Mr. E. J. Butcher, Acting Chief
Operating Reactors Branch #3
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

References: (1) W. G. Counsil letter to J. R. Miller, dated December 12, 1983.

(2) J. R. Miller letter to W. G. Counsil, dated May 8, 1984.

(3) W. G. Counsil letter to J. R. Miller, dated February 15, 1985.

Gentlemen:

Millstone Nuclear Power Station, Unit No. 2
Core Barrel Inspection

In Reference (1) Northeast Nuclear Energy Company (NNECO) provided a report in connection with the thermal shield removal and plant recovery program. In Section 9.5 of that report NNECO committed to evaluate performing inspections of the core barrel to verify that the through-wall cracks at thermal shield support lugs 4 and 5 have not propagated.

In Reference (2) the Staff provided its review of the Millstone Unit No. 2 thermal shield recovery program. The Staff's principal recommendation was that the core barrel be inspected during the next refueling outage.

In Reference (3) NNECO provided a summary of the core barrel inspection to be performed at Millstone Unit No. 2 during the Cycle 7 refueling outage. NNECO committed to provide the NRC the inspection results and conclusions on or about June 1, 1985. Accordingly, the attachment provides the examination results of the Millstone Unit No. 2 core barrel. The results verify that through-wall cracks at thermal shield support lugs 4 and 5 have not propagated.

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We trust you will find this information satisfactory.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

J. F. Opeka
J. F. Opeka
Senior Vice President

C. Sears
By: C. F. Sears
Vice President

Docket No. 50-336

Attachment

Millstone Nuclear Power Station, Unit No. 2
Core Barrel Inspection

June 1985

Millstone Unit No. 2
Core Barrel Inspection Report

Background

This report summarizes the visual examination performed on the Millstone Unit No. 2 core barrel during the 1985 Cycle 7 refueling outage. Eddy current examination was used to classify visual indications as surface irregularities or flaws.

Visual examination of the reactor vessel core barrel was performed in the area of the thermal shield support lug locations #4 and #5. These lugs were removed during the 1983 Cycle 6 refueling outage when cracks were found at these locations. The examination performed was to determine if, during the last operating cycle, any further degradation had developed. The examinations performed consisted of a visual examination of the lug areas, followed by eddy current examination to detect areas of possible new flaws.

Results

The visual examination of the lug #4 area identified 4 visual indications including the previously identified flaw that was arrested by drilling crack arrestor holes during the last outage. The other suspect indications were scanned using a surface riding eddy current technique and determined to be nonrelevant surface imperfections.

The visual examination of the lug #5 area identified 9 visual indications. Five of the indications were identified visually as tooling marks. Three of the indications were scanned using eddy current examination and determined to be nonrelevant. One indication is part of the original cracking identified in 1983 and showed no change.

Visual examination information was videotaped for future reference and to document examination results. Examination personnel and tooling were supplied by NPD of Babcock & Wilcox (B&W), Lynchburg, Virginia. All personnel reviewing data and recording results were qualified level II technicians in accordance with NNECO and B&W administrative procedures.

Summary

The visual and eddy current examinations revealed no evidence of flaw propagation or new flaws on the Millstone Unit No. 2 core barrel.