

# 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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May 20, 1983

Docket No. 50-423  
AEC-MP3-319  
B10797

Mr. James M. Allan  
Acting Regional Administrator  
Region I  
Office of Inspection and Enforcement  
U.S. Nuclear Regulatory Commission  
631 Park Avenue  
King of Prussia, PA 19406

Gentlemen:

Millstone Nuclear Power Station, Unit No. 3  
Reporting of Potential Significant Deficiencies  
in Design and Construction: Possible  
Misoperation of Westinghouse DS-416 Reactor  
Trip Switchgear (SD-37)

In an April 20, 1983 telephone conversation between your Mr. L. Briggs and our Mr. R. E. Lefebvre, Northeast Nuclear Energy Company (NNECO) reported a potential significant deficiency in the construction of Millstone Unit No. 3 as required by Title 10 Code of Federal Regulations Part 50, Paragraph 55(e).

The deficiency involves the potential for misoperation of DS-416 reactor trip switchgear undervoltage (UV) attachments. Westinghouse advised utilities of this problem based on reported malfunctions at one plant during testing. At that time, Westinghouse requested information from utilities concerning dimensions of several clearances in the UV attachment to aid in their evaluation. Westinghouse subsequently concluded that deviations from the recommended clearances could increase the potential for misoperation of the UV attachment, thereby creating a condition wherein the reactor trip switchgear might not open on automatic demand from the reactor protection system.

Westinghouse has investigated the misoperation of another DS-416 UV attachment and has found the cause to be a missing retaining ring on one of the two UV attachment pivot shafts. This allowed the pivot shaft to move laterally such that one end came out of its guide hole in the frame of the UV attachment, and did not permit the attachment to operate on demand.

The Westinghouse evaluation of the retaining ring issue revealed a discrepancy in design. The groove in the shaft receiving the retaining ring was not increased in width to be consistent with an earlier retaining ring design change. The new retaining ring is wider than the original design and does not seat properly in the existing grooves. This discrepancy increases the potential for misoperation of

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the DS-416 UV attachment, thereby creating a condition wherein the reactor trip switchgear might not open on automatic demand from the reactor protection system.

Westinghouse has proposed corrective actions to resolve the problem of DS-416 UV attachment misoperation. They are:

- (1) Westinghouse is committing to its utilities to replace the undervoltage attachments on DS-416 reactor trip switchgear supplied by Westinghouse for its Nuclear Steam Supply Systems.
- (2) The new attachments have modified (widened) grooves to accommodate the new retaining rings.
- (3) Manufacturing drawings have been revised and quality control procedures have been modified to assure that critical design dimensions are maintained during manufacture.
- (4) Westinghouse is developing and will implement a procedure for installation of the new UV attachments on DS-416 reactor trip switchgear in the plant. This field installation procedure will provide for proper alignment and interface of the attachment with the breaker trip shaft.

NNECO will comply with the Westinghouse recommendations and will ensure that all DS-416 reactor switchgear UV attachments are replaced with the new design and tested prior to the November 1, 1985 fuel load date for Millstone Unit No. 3.

As such, this letter constitutes our final report closing out all items related to SD-37. We trust that the above information satisfactorily responds to your concerns.

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

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