

STONE & WEBSTER ENGINEERING CORPORATION



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Mr. Victor Stello, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Washington, DC 20555

July 23, 1980

80-258-002

Dear Mr. Stello:

NOTIFICATION OF DEFECT, 10CFR21
SHOREHAM NUCLEAR POWER STATION - UNIT 1
LONG ISLAND LIGHTING COMPANY

Stone & Webster Engineering Corporation (S&W), pursuant to the provisions of 10CFR21, hereby provides notification of a "defect" concerning the Shoreham Nuclear Power Station, Unit 1, owned by Long Island Lighting Company (LILCO) and for which S&W provided both engineering and construction services.

In accordance with the requirements of Section 21.21(b)(3), the following information is submitted:

1. Name and address of the individual informing the Commission:

Mr. P. A. Wild, Director of Engineering
Stone & Webster Engineering Corporation
Post Office Box 2325
Boston, MA 02107

2. Identification of the facility, or the basic component supplied for such facility, which contains a defect:

Shoreham Nuclear Power Station, Unit 1
General Electric Company (GE) 4 kV switchgear circuit
breaker - Snap Rings

3. Identification of firm constructing facility or supplying basic component which contains a defect:

Basic Component supplied by GE

8008270 190

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4. Nature of the defect and the safety hazard which could be created by such defect:

There exists a departure from the technical requirements of a procurement document in that breakers could have failed to operate as specified.

The defective circuit breakers are basic components in GE metal-clad switchgear (4 kV) and the switchgear has been delivered to a purchaser.

As a result of loose breaker main output cranks, other links in the breaker mechanism moved out of alignment and impacted the prop pin snap ring. The effect of these impacts deformed the snap ring sufficiently to allow it to fall off the prop pin. This could result in the failure of the breaker to operate properly.

The breakers are required under design basis events to assure the capability to shut down the reactor and maintain it in a safe shutdown condition. Degradation of such essential safety-related equipment represents a major reduction in the degree of protection provided to the public health and safety and results in a substantial safety hazard.

5. Date on which information of such defect was obtained:

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6. In the case of a basic component which contains a defect, the number and location of all such components in use at, supplied for, or being supplied for facilities subject to the regulation:

Shoreham Nuclear Power Station - 65-4 kV switchgear circuit breakers of which 29 are used in safety-related application.

7. The corrective action which has been, is being, or will be taken; name of individual or organization responsible; and length of time taken to complete the action:

All 65 breakers at the Shoreham site were returned to GE for corrective work. Corrective action consisted of complete disassembly of each breaker mechanism for inspection with replacement of parts as necessary.

GE factory engineering and Quality Assurance groups have been apprised of this problem to prevent recurrence.

The identified corrective action has been completed.

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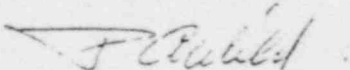
8. Advice related to the defect that has been given to purchasers or licensees:

No other action apart from that specified under the previous section.

Identification of this defect and the filing of this report are results of a review of 10CFR50.55(e) Reports and Licensee Event Reports filed by S&W clients since January 6, 1978. This review, committed to in our letter to NRC of September 6, 1979, resulted from the NRC special inspection of May 1-4, 1979. NRC has been previously advised of this problem by LILCO notification on November 17, 1978, in accordance with 10CFR50.55(e).

If you require any further information, please contact S. B. Jacobs at 617-973-5264.

Very truly yours,



P. A. Wild
Director of Engineering

PAS:mra