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November 23, 1983

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

Dear Dr. Murley:

SIGNIFICANT CONSTRUCTION DEFICIENCY
DEFECTIVE AKR-30 CIRCUIT BREAKERS
HOPE CREEK GENERATING STATION

On October 26, 1983, a verbal report was made to Region I, Office of Inspection and Enforcement representative, Mr. A. Finkel, advising of a potentially significant construction deficiency concerning defective parts in circuit breakers supplied by General Electric. The following final report is provided in accordance with the requirements of 10CFR50.55(e).

Description of the Problem

Bechtel Power Corporation, our Architect/Engineer and Constructor, was informed by Service Advice Letter 175 9.11 from General Electric that electrically operated AKR-30 circuit breakers manufactured before May of 1980 may contain a defective switch and an improperly heat treated part which could result in the failure of the circuit breaker to close upon command. Bechtel had purchased AKR-30 circuit breakers from General Electric under Purchase Orders No. 10855-E-117(Q) and 10855-E-121(Q) for AC and DC applications respectively.

General Electric and Bechtel have inspected 188 circuit breakers supplied under Purchase Order 10855-E-117(Q) and identified 107 breakers with defective switches in the control circuitry and 86 breakers with improperly heat treated closing spring props.

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Corrective Action

Under the guidance of General Electric personnel, Bechtel will replace the defective switches and closing spring props in the identified AC circuit breakers at our Seabrook storage facility. This work will be controlled and documented by Nonconformance Report No. 2627. We anticipate that this work will be completed by December 30, 1983.

The 80 AKR-30 DC circuit breakers supplied under Purchase Order 10855-E-121(Q) were returned to General Electric's Plainville, Connecticut, facility for testing and/or rework on October 26, 1983. Bechtel has issued a Quality Surveillance Assignment to provide inspection of the circuit breaker rework at that location. Each breaker will be inspected by Bechtel prior to release from General Electric.

Safety Analysis

Any of these circuit breakers could be installed in Class 1E circuits that supply Class 1E loads, which are needed for safe and orderly shutdown of the reactor, maintaining the plant in a safe shutdown condition, or mitigating the consequences of an accident. The defective parts could have caused a failure of an AC or DC AKR-30 circuit breaker to close upon command, which could adversely affect the safe operation of the plant. Therefore, this condition is considered reportable in accordance with 10CFR50.55(e).

Very truly yours,



CC Office of Inspection and Enforcement
Division of Reactor Construction Inspection
Washington, D. C.

NRC Resident Inspector - Hope Creek
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