

Public Service of New Hampshire

February 21, 1985

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New Hampshire Yankes Division

United States Nuclear Regulatory Commission Region I 631 Park Avenue King of Prussia, PA 19406

Attention:

Mr. Richard W. Starostecki, Director Division of Project and Resident Programs

References:

(a) Construction Permits CPPR-135 and CPPR-136, Docket Nos. 50-443 and 50-444

(b) Telecon of January 18, 1985, A. L. Legendre, Jr. (YAEC) to

Jim Beall (NRC Region I)

(c) PSNH Letter SBN-723, dated October 26, 1984, "Final 10CFR50.55(e) Report: Gould Molded Case Circuit Breakers - Non-Reportability Determination", J. DeVincentis to R. W. Starostecki

Subject:

Interim 10CFR50.55(e) Report: Gould Molded Case Circuit
Breakers

Dear Sir:

On January 18, 1985, we reported a potential 10CFR50.55(e) deficiency [Reference (b)] regarding Gould molded case circuit breakers. This deficiency has been evaluated and we have determined that it is reportable under the provisions of 10CFR50.55(e).

Description of Deficiency

The deficiency involves the failure of ten Gould molded case circuit breakers (40-amp trip, Model HE3M040) to pass the instantaneous overcurrent trip test performed at Seabrook Station by the Start-Up and Test Department.

A similar failure was reported to Region I on May 16, 1984, at which time the breakers were returned to the factory for evaluation. The manufacturer reported that the problem was a result of incorrect calibration. The incorrect calibration represented an isolated breakdown in the quality control procedures of Gould's sub-supplier. Based on this, we considered the item as nonreportable and we informed Region I accordingly [Reference (c)].

Since then, the ten breakers were returned from the factory to Seabrook Station, and during acceptance testing, six of the ten breakers failed again to pass the instantaneous overcurrent trip test. The acceptance criteria of this test are based on the manufacturer's time-current curve presently on hand.

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Further investigation on this anomaly has revealed the following: ITE
Electrical Products (Division of Siemens Allis), which is Gould's sub-supplier
for the subject breakers, has indicated that there is a discrepancy in the
magnetic trip range between the published engineering data (time-current
curves) and manufacturing data. Manufacturing data indicates that the trip
range for this type breaker is 600 to 1,000 amperes; whereas, the published
time-current curve indicates 400 to 700 amperes.

The subject breakers were tested successfully, based on the manufacturing data, before they left ITE's factory, but failed when they were tested at Seabrook Site, based on the published time-current curve. Obviously, the discrepancy in tripping ranges accounts for the failure of the subject breakers to pass the test.

Safety Implications

In this specific case, the breakers will perform their intended function as designed, and therefore, there is no safety implication associated with the subject deficiency, due to the small difference in the instantaneous tripping range between the published range (400 to 700 amperes), and the actual as-constructed range (600 to 1000 amperes). We do, however, view the failure of Gould's sub-supplier to provide the proper information on tripping ranges, and the failure of Gould to identify the subject deficiency before returning the circuit breakers to Seabrook Station as significant breakdowns in the Quality Control procedures of both Gould and Gould's sub-supplier for the breakers.

Corrective Action

To prevent the recurrence of the subject deficiency, Gould will review purchase orders to assure that Class IE requirements are clearly specified. Gould will also test all IE circuit breakers, prior to shipment, to the requirements of NEMA AB-2, and issue objective evidence for each tested circuit breaker. Gould's sub-supplier for the circuit breakers will issue corrected time-current curves specifying the proper magnetic tripping range.

We will inform Region I when the corrective action has been completed. This letter is being filed pursuant to the interim reporting provisions of 10CFR50.55(e)(3).

Very truly yours.

John DeVincentis, Director Engineering and Licensing

cc: Atomic Safety and Licensing Board Service List

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