

PDR



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

NOV 05 1990

Docket No. 99900786/90-01

Mr. Norman R. Beaudoin,
GE Electrical Distribution & Control
41 Woodford Avenue
Plainville, Connecticut 06062

Dear Mr. Beaudoin:

This letter addresses the inspection of your facility at Plainville, Connecticut, conducted by Mr. Stephen D. Alexander of the Vendor Inspection Branch on May 24, 1990, and the discussion of our findings with you and other members of your staff at the conclusion of the inspection.

The purpose of the inspection was to review GE Electrical Distribution & Control's (GE-ED&C's) failure mode and root cause analysis and planned corrective action regarding the malfunction of GE TED- and THED-type molded-case circuit breakers (MCCBs) that was identified during pre-installation testing by the Oyster Creek Nuclear Generating Station (Oyster Creek). The test failures were apparently related to the presence of internal accessory undervoltage release (UVR) devices in the MCCBs. The NRC inspector observed testing conducted by GE-ED&C at your Plainville facility as part of the failure mode analysis.

Through your preliminary investigation, you determined that your factory in Humacao, Puerto Rico, improperly installed the calibration screw spring clips on the thermal overcurrent trip elements of these, and other E-frame MCCBs manufactured by this factory. This indicated that the commercial quality controls in place at Humacao apparently failed to detect or to correct the incorrectly oriented spring clips. The inspector also noted that the quality controls at your MCCB accessory installation facility in Mascot (Knoxville), Tennessee, lacked the final post-installation testing of the MCCBs that would have detected the interference of the UVR with the thermal trip function.

Although we found that your testing confirmed your failure analysis, we are concerned that the conditions resulting in the malfunction of Oyster Creek's MCCBs may not be confined to the MCCBs that were shipped to Oyster Creek in 1989. Accordingly, we have issued NRC Information Notice 90-43 (copy enclosed) to alert NRC licensees to conditions under which such malfunctions can occur. This information notice also emphasized the importance of pre-installation testing that can detect this problem before MCCBs are used in nuclear safety-related systems.

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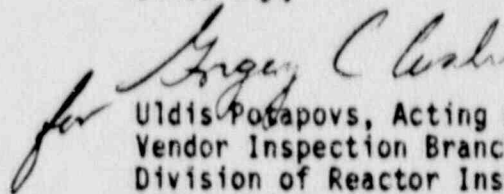
GE ED&C/Norman Beaudoin

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We acknowledge your intention to conduct appropriate final testing procedures at Knoxville and to take corrective action, including design changes that may be required, to prevent further UVR-spring clip interference. Nevertheless, we would appreciate being informed of any additional information you may obtain regarding the time frames during which MCCBs may have been built with the incorrectly oriented spring clips. In addition, please inform us of any plans that you may have for instituting similar final testing procedures at your other post-manufacturing facilities or other facilities licensed or approved by GE-ED&C to install MCCB accessories. We appreciate your cooperation and assistance in determining the cause of this problem and providing us with the requested information so that licensees may prevent the recurrence of similar problems in their plants.

In accordance with 10 CFR 2.790 of the Commission's regulations, a copy of the letter and the enclosed inspection report will be placed in the NRC's Public Document Room. Should you have any questions regarding this matter, we would be pleased to discuss them with you.

Sincerely,



Uldis Potapovs, Acting Chief
Vendor Inspection Branch
Division of Reactor Inspection and Safeguards
Office of Nuclear Reactor Regulation

Enclosures:

1. Inspection Report 99900786/90-01
2. NRC Information Notice 90-43