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

APR 2 5 1989

Mr. W. J. Heerlein, Manager Production and Quality Engineering GE Electrical Distribution and Control General Electric Company 41 Woodford Avenue Plainville, Connecticut 06062

Dear Mr. Heerlein:

8905020391 890425 PDR TOPRP EMVGENE

PNU

This is in response to your letter of February 25, 1989, concerning the circuit breaker test program contained in NRC Bulletin 88-10.

After careful review of your letter we have determined that the proposed modifications to the test program should not be adopted. The purpose of the Bulletin 88-10 test program is to verify the operating characteristics of potentially refurbished breakers that may have been upgraded to safety-related applications. The Bulletin 88-10 test program is based on UL and NEMA standards to assure the functional performance of these circuit breakers. If the test requirements of the Bulletin 88-10 are relaxed, some refurbished circuit breakers may pass the relaxed test requirements and yet not perform according to the original manufacturer's specifications. Specific responses to your comments are listed below.

- We disagree with the assertion that the pule resistance and millivolt drop 1. are difficult to measure accurately and consistently. The purpose of this test is to determine the condition of the breaker contacts and pole unit assembly. Direct-current equipment is readily available to perform this test accurately and correctly in the field or in the factory. The use of ac current test equipment is not recommended because of the influence of induced voltages and ac inductance affects in accurately measuring the contact resistance. Although the 2-to-1 variation among poles of a breaker might be acceptable for breakers of known origin, it certainly should not be used for breakers of unknown origin. The National Electric Testing Association specifications specify a 50 percent variation among poles to be a reasonable limit for breakers used in commercial facilities. We feel the 50 percent variation to be reasonable and achievable for safety related circuit breakers.
- We do not agree with the recommendation that current tolerances for the 2. adjustable instantaneous trip current be broadened. The NRC expects that the licensees who choose to perform the Bulletin 88-10 testing program will employ proper equipment and trained technicians or they will engage others having this expertise to conduct these tests. The Bulletin 88-10 test program objective is to assure that potentially refurbished circuit OF03 RDGE INA breakers meet appropriate functional and operability specifications to assure their performance in installed reactor systems.

Mr. W. J. Heerlein

We appreciate your interest in the circuit breaker test program. If you have additional questions or comments concerning this issue, please contact Mr. Paul Gill of the Electric Systems Branch (301) 492-0811 or Mr. Uldis Potapovs of the Vendor Inspection Branch (301) 492-0984.

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Sincerely,

Original signed by E. William Brach

E. William Brach, Chief Vendor Inspection Branch Division of Reactor Inspection and Safeguards Office of Nuclear Reactor Regulation

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