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July 3, 1979

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
United States Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

Dear Mr. Grier:

Subject: Oyster Creek Nuclear Generating Station
Docket No. 50-219
IE Bulletin No. 79-11

The purpose of this letter is to respond to IE Bulletin No. 79-11 which reports information relating to the potential failure of Westinghouse types DB-75 and DB-50 circuit breakers due to faulty overcurrent trip devices. Our responses to the Action Items numbered 1 and 4 in the bulletin are given below. Action Items numbered 2 and 3 pertain only to those facilities which utilize Westinghouse switchgear in safety-related systems, and therefore, do not apply to Oyster Creek.

Item 1

Determine whether circuit breakers of the above described manufacturer and type with overcurrent trip devices are in safety related Class IE service or in spares at your facilities.

Response

Westinghouse switchgear is not utilized in any safety-related systems at Oyster Creek.

Item 4

Review test procedures and test schedules for all safety related circuit breakers to assure that all such breakers are tested at least each refueling outage to confirm overcurrent time delay protection.

Response

It is not clear whether Action No. 4 pertains to all licensees or only to those who utilize Westinghouse switchgear. Due to the inferred criteria for test schedules related in Action No. 4, we wish to clarify the

test procedures used at Oyster Creek for overcurrent trips of General Electric manufacture.

The General Electric counterparts of Westinghouse DB-50 and 75 breakers are the AK series 480V power circuit breakers. Type AK-2A-25, 50 and 75 breakers are in use at Oyster Creek. Instruction Book GEK-7303A does not provide information relative to time intervals for overcurrent trip testing. Generally accepted procedure for such industrial equipment, as confirmed recently by General Electric representatives, is to provide a PM program based on breaker service factors such as severe load conditions, excess dust or moisture environments, heavy cyclic operation or frequent short circuit interruptions. Since none of these conditions exist in breaker service at Oyster Creek, the program adopted consists of yearly lubrication, cleaning, and contact checks of the breakers including megger tests and electrical operational testing.

As recommended, a complete inspection is required after a breaker has interrupted a short circuit which should include electrical high current testing of overcurrent trips. Otherwise, high current tests of this nature on a yearly basis may tend to overheat and age these devices prematurely and unnecessarily.

The series overcurrent device is composed of three individual overcurrent elements, each of which has to be subjected to a high current test on each phase of the breaker. The testing of each element (long time, short time, and instantaneous elements) each year represents nine high current tests per breaker per year at a current level of generally 6 to 12 times the rating of the overcurrent coil. It is questionable whether such a test should be performed so frequently.

During the 1977 refueling outage, all overcurrent trips in safety-related breakers were tested to determine if their settings remained accurate. Only minor adjustments, which were determined to be insignificant in nature, were performed to a couple of elements. At the time of the test, these devices had been in service for eight years. Since we do believe such tests should be performed on a periodic, but less frequent basis than normal breaker servicing, we are making plans to retest these devices during the 1980 refueling outage (an interval of three years). In the absence of specific defects such as found on Westinghouse overcurrent trip devices, and if we find no noticeable deviation of settings in 1980, we plan to regularly test these devices on a five-year basis consistent with general industry practices for overcurrent protective relays for switchgear. We feel the demonstrated reliability and the concern for excessive testing justify our actions.

Very truly yours,

Donald A. Ross

Donald A. Ross, Manager
Generating Stations-Nuclear

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