

DUKE POWER COMPANY

P.O. BOX 33180
CHARLOTTE, N.C. 28242

HAL B. TUCKER
VICE PRESIDENT
NUCLEAR PRODUCTION

TELEPHONE
(704) 373-4531

March 28, 1984 56

Mr. James P. O'Reilly, Regional Administrator
U. S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30303

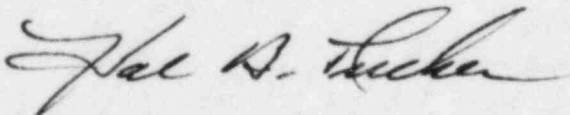
Re: Oconee Nuclear Station
Docket Nos. 50-269, -270, -287
IE Bulletin 83-08

Dear Sir:

In response to IE Bulletin 83-08 dated December 28, 1983 concerning the use of circuit breakers with an undervoltage trip feature in safety related applications other than the Reactor Trip System, please find attached a report for Oconee Nuclear Station pursuant to Action Item 3 of the bulletin.

I declare under penalty of perjury that the information contained herein is correct to the best of my knowledge as executed on March 28, 1984.

Very truly yours,



Hal B. Tucker

PFG/php

Attachment

cc: Document Control Desk
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. J. C. Bryant
NRC Resident Inspector
Oconee Nuclear Station

Ms. Helen Nicolaras
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

8404170374 840328
PDR ADOCK 05000269
PDR
Q

IE 11
11

Duke Power Company
Oconee Nuclear Station
Response to IE Bulletin 83-08

Item 1:

Identify applications of W type DB, W type DS, or GE type AK-2 circuit breakers with the UV trip feature as discussed in IEB 83-01 or 83-04 in safety-related applications at your facility or facilities, other than as RTBs. CP holders and licensees should also identify similar applications of other types of breakers by other manufacturers that use a UV trip feature. If such circuit breakers are used or planned for use, identify the system(s) involved.

Response (1):

Oconee Nuclear Station does not use or plan to use Westinghouse (W) type DB, type DS, General Electric (GE) type AK-2, or other circuit breakers by other manufacturers with the under voltage (UV) trip feature in safety-related applications other than the GE AK-2 circuit breakers being used as reactor trip breakers.

Keowee Hydroelectric Station does use W type DB breakers in the excitation area as incoming and field flash breakers. In addition, W DB breakers are in use in the 600 volt auxiliary 1x and 2x load centers as incoming and feeder breakers. These breakers, however, are used in a different application than the reactor trip breakers. These breakers are not equipped with a UV trip attachment and are used to close and complete a circuit rather than to open and interrupt a circuit.

A review of all circuit breakers used in safety-related applications was initiated in order to identify if these breakers are using a UV trip feature. This investigation has indicated that circuit breakers with the UV trip feature are not used in any safety-related applications other than for the reactor trip breakers.

Item 2:

For each circuit breaker type identified in Item 1, do the following:

- a. Review the design of the UVTA and the connecting linkage. Using input from the breaker manufacturer, determine the design margin available to open the breaker. Evaluate whether or not this design margin is adequate in view of safety applications, considering possible problems of alignment, lubrication, adjustment of spring tension, etc., discussed in the "Description of Circumstances."
- b. Describe the current breaker surveillance program, including details of test frequency, methodology, and response time measurement of UVTA device.

- c. Review operating experience with the circuit breakers in your plant(s) identified in Item 1. Provide a list of all malfunctions (both failure to trip and failure to close on demand) associated with the UVTA, including the connecting linkages and latching mechanisms. The list should include the date of each malfunction, and the operating time prior to failure or date of installation, and the date(s) of major maintenance. In general, when the circuit breaker UVTA is actuated on undervoltage and the breaker contacts do not open within the design time response value, the NRC considers the breaker to have failed.
- d. Describe any preventive or corrective measures you have taken, or intend to take, based on the results of Items 2a, 2b, and 2c. Include any revisions to the surveillance test program and methodology. Specifically, address the inherent reliability of the UV trip feature in view of its apparent heavy dependence on intensive maintenance and surveillance and whether a basic design change is warranted to correct the problem, e.g., using a voltage sensitive relay to sense loss of voltage and energize the shunt trip coil from an independent dc power source.

Response (2):

Not applicable to Oconee Nuclear Station.