

CENTRAL F

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

500C Chestnut Street Tower II

JUN 20 1979

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Mr. James P. O'Reilly, Director
Office of Inspection and Enforcement
U.S. Nuclear Regulatory Commission
Region II - Suite 3100
101 Marietta Street
Atlanta, Georgia 30303

Dear Mr. O'Reilly:

OFFICE OF INSPECTION AND ENFORCEMENT BULLETIN 79-09 - RII:JPO
50-327, -328, -390, -391, -438, -439, -518, -519, -520, -521,
-553, -554, -566, -567 - SEQUOYAH, WATTS BAR, BELLEFONTE,
HARTSVILLE, PHIPPS BEND, AND YELLOW CREEK NUCLEAR PLANTS

In response to your April 17, 1979, letter which transmitted OIE
Bulletin 79-09, we are enclosing the results of our investigations
for our Sequoyah, Watts Bar, Bellefonte, Hartsville, Phipps Bend,
and Yellow Creek Nuclear Plants.

Very truly yours,

J. E. Gilleland
Assistant Manager of Power

Enclosure

cc: Office of Inspection and Enforcement (Enclosure)
Division of Reactor Operations Inspection
U.S. Nuclear Regulatory Commission
Washington, DC 20555

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ENCLOSURE

RESPONSE TO OIE BULLETIN 79-09
FAILURE OF GE TYPE AK-2 CIRCUIT BREAKERS IN
SAFETY-RELATED SYSTEMS

Item 1 - Determine whether or not GE type AK-2 circuit breakers are used or planned for use in safety-related systems at your facility(ies).

Response to Item 1

Hartsville, Phipps Bend, and Yellow Creek Nuclear Plants

GE type AK-2 circuit breakers are neither in use nor are planned for use in safety-related systems.

Sequoyah Nuclear Plant

None of the GE type AK-2 breakers are in use or planned for use in NSSS safety-related systems. However, for certain Balance-of-Plant (BOP) safety-related systems, the breakers are used for testing but do not supply power to any safety-related systems during operation. These breakers do not have the undervoltage trip device.

Watts Bar Nuclear Plant

None of the GE type AK-2 circuit breakers are in use or planned for use in NSSS safety-related systems. However, for certain Balance-of-Plant safety-related systems, GE type AK-2 circuit breakers are in use. These breakers do not have the undervoltage trip device.

Bellefonte Nuclear Plant

There are none of the GE type AK-2 circuit breakers now in use or planned for use in Balance-of-Plant safety-related systems. However, GE type AK-2 circuit breakers are in use in NSSS safety-related systems. These breakers do have the undervoltage trip device, but it appears to be physically different than the one depicted in Figure 1 of Bulletin 79-09.

Item 2 - If such circuit breakers are used or are planned for use, identify the safety-related system involved and provide in written form your plans for developing a preventative maintenance program which will assure design performance with the GE AK-2 circuit breakers.

Response to Item 2

Sequoyah and Watts Bar Nuclear Plants

The GE AK-2 circuit breakers in use in the Balance-of-Plant safety-related system are listed below:

Sequoyah - one AK-2 circuit breaker in each of the 125V dc vital battery boards I, II, III, and IV, however, these breakers are used for battery discharge tests only and do not supply power during normal operation.

Watts Bar - two AK-2 circuit breakers in each of the 125V dc vital battery boards I, II, III, and IV; one breaker per board is the supply breaker to the board and the other breaker is used for battery discharge testing only.

Refer to Attachment A for the Details of the preventative maintenance program, established at all plants for the circuit breakers.

Bellefonte Nuclear Plant

GE type AK-2 circuit breakers are used only in the NSSS safety-related system, Control Rod Drive Control Systems, and have the following UNID numbers:

Units 1 and 2, NR-S2-013-D
Units 1 and 2, NR-S2-014-E
Units 1 and 2, NR-S2-015-F
Units 1 and 2, NR-S2-016-G

Refer to Attachment A for the details of the preventative maintenance program, established at all plants for the circuit breakers.

ATTACHMENT A

PREVENTATIVE MAINTENANCE PROGRAM FOR GE AK-2 CIRCUIT BREAKERS

I. Schedule

Preventative maintenance will be performed on all GE AK-2 circuit breakers before putting the breakers into service. From this time, maintenance will be performed for each respective unit in accordance with the applicable maintenance instruction for each plant. For Sequoyah, the maintenance instruction is MI-10.3. For Watts Bar the maintenance instruction is MI-236.3 and for Bellefonte the maintenance instruction is EMI-NR-2901. Because no operational problem has been encountered with the GE AK-2 circuit breakers during performance of maintenance instructions and during normal operation at Browns Ferry, there is no plan to increase the frequency of maintenance.

II. Qualified Personnel

All personnel performing maintenance on the circuit breakers are journeyman electricians. The applicable instruction bulletins will be referenced in the maintenance instruction.

III. GE Service Letter

The applicable recommendations in the GE Service Alert Letter No. 175 (CPDD) 9-3 will be incorporated into existing instructions. At present, all accessible mechanical bearing points and mechanical sliding surfaces are lubricated. The breaker and operating mechanism are checked for problems such as loose nuts and retaining rings. In addition, the breaker is slow closed and opened, and electrically test closed and opened to verify proper operation.

IV. Replacement

If a breaker fails the periodic testing, the breaker will be replaced with an acceptable spare. The failed breaker will then be inspected/ repaired in accordance with the applicable maintenance instruction before returning the breaker to service. Trip adjustments will not be compromised when making adjustments of other features (such as bell alarm circuit).