

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401
400 Chestnut Street Tower II

August 28, 1980

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

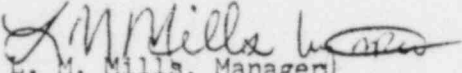
Dear Mr. O'Reilly:

HARTSVILLE NUCLEAR PLANT ALL UNITS - REPORTABLE DEFICIENCY - WIRING
DISCREPANCIES IN HIGH PRESSURE CORE SPRAY METAL CLAD SWITCHGEAR
(NCR HNP-A-090)

Initial report of the subject deficiency was made to NRC-OIE, Region
II Inspector R. W. Wright on March 25, 1980. The first interim
report was submitted to you on April 24, 1980. In compliance with
paragraph 50.55(e) of 10 CFR Part 50, enclosed is the final report
of the subject deficiency. If you have any questions concerning
this subject, please call Jim Domer at FTS 857-2014.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


L. M. Mills, Manager
Nuclear Regulation and Safety

Enclosure

cc: Mr. Victor Stello, Director (Enclosure) ✓
U.S. Nuclear Regulatory Commission
Office of Inspection and Enforcement
Washington, DC 20555

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ENCLOSURE
HARTSVILLE NUCLEAR PLANT - ALL UNITS
WIRING DISCREPANCIES IN HIGH PRESSURE CORE SPRAY METAL-CLAD SWITCHGEAR
10CFR50.55(e) REPORT NO. 2 (FINAL)
NCR HNP-A-090

On March 25, 1980, TVA informed NRC-OIE, Region II, Inspector R. W. Wright, of a reportable deficiency under 10CFR50.55(e) involving wiring discrepancies on the high pressure core spray (HPCS) metal-clad switchgear.

This is the final report on this reportable deficiency.

Description of Deficiencies

Wiring checks by Hartsville site personnel disclosed wiring discrepancies in the HPCS metal-clad switchgear. These discrepancies involve wiring terminations which do not match the wiring diagrams, errors on the wiring diagrams, missing components (such as capacitors or resistors), mislabeling or nonlabeling of parts or terminations, and examples of discrepancies between bill of materials and installed components.

Also, as discussed with R. W. Wright, the wiring check disclosed six GE SB-12 auxiliary switches with either no date codes or date codes from August 1, 1978, to July 1, 1979 (two of the six had date codes August 1, 1978 to July 1, 1979). This was previously indicated in TVA NCR 2-1 (final report filed August 16, 1979) as the date code for potentially defective SB-12 auxiliary switches. The potentially defective SB-12 switches were not discovered in the HPCS metal-clad switchgear because this switchgear was initially shipped to Hartsville before August 1, 1978. However, the subject switchgear had been shipped back to GE's Switchboard Division (GE-SBD) in November 1978 to have work done on ML-13 operating mechanisms. Evidently, at the time the potentially defective SB-12 switches were installed in the switchgear by GE-SBD.

The metal-clad switchgear was fabricated by GE-SBD, Philadelphia, Pennsylvania, as part of the NSSS package for both Hartsville and Phipps Bend Nuclear Plants.

Safety Implications

The list of wiring discrepancies on the subject NCR contains six items applying to one or more of the four Hartsville units which could potentially prevent the components from functioning as intended. These conditions might have degraded performance of the safety function of the HPCS system if the discrepancies had remained uncorrected and could have adversely affected the safety of operation of the facility.

Corrective Actions

TVA has performed an extensive wiring check on each of the HPCS metal-clad switchgear cabinets at Hartsville. All discrepancies which would have affected the operation of the components have been identified. GE has evaluated these discrepancies and the other nonsignificant discrepancies between the as-built units and applicable documentation and drawings. They have approved and issued the appropriate documentation (FDDR's) to have the site make the necessary corrections. All six of the potentially defective SB-12 switches, previously discussed herein have been replaced with new SB-12 switches by a GE field representative. The remaining discrepancies in hardware, both significant and nonsignificant, will be corrected by January 30, 1981. Necessary software corrections (i.e., changes to drawings or bills of material) will be completed and issued to the site by June 30, 1981.

Since all wiring discrepancies have been identified no further testing will be required other than that associated with the RIS&PM program.

Phipps Bend metal-clad switchgear have been examined for similar deficiencies as those listed in NCR HNP-A-090. Few of the discrepancies found in the Hartsville equipment were present in the Phipps Bend equipment and these were very minor discrepancies. However, a complete wire check was not made at that time. This wire check is currently underway and, if any significant deficiencies are found, they will be reported under a separate Phipps Bend NCR.