



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

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U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

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Appeal Board
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

In the Matter of
TENNESSEE VALLEY AUTHORITY
(Phipps Bend Nuclear Plant, Units 1 and 2)
Docket Nos. 50-553 and 50-554



Gentlemen:

By cover letter from J. E. Gilleland, TVA, to H. R. Denton, NRC, dated November 16, 1978, TVA submitted a written report describing an additional fault discovered in the Phipps Bend, Unit 2, fuel building area. The report concludes that the fault in question is not capable within the meaning of Appendix A to 10 CFR Part 100. A copy of this letter and attached report are enclosed for your information.

As expressed in the enclosed internal NRC memorandum from J. C. Stepp to O. D. Parr, dated December 12, 1978, the Staff concurs with the conclusion reached in the TVA report. Apparently related faulting was the subject of prior Staff correspondence, most recently on September 20, 1978.

Sincerely,

Steven C. Goldberg
Counsel for NRC Staff

Enclosures:
As stated

cc: w/enclosures

See Phipps Bend Service List

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DEC 12 1978

MEMORANDUM FOR: Olan D. Parr, Chief
Light Water Reactors Branch #3, DPM

FROM: J. Carl Stepp, Chief
Geosciences Branch, DSE

SUBJECT: FAULTING IN FUEL BUILDING EXCAVATION FOR PHIPPS
BEND, UNIT 2, TAC# 4954

PLANT NAME: Phipps Bend Nuclear Power Plant, Units 1 & 2
LICENSING STAGE: CP
DOCKET NUMBERS: 50-554
MILESTONE NUMBER: N/A
RESPONSIBLE BRANCH: Sid Miner, LWR-3

On November 14, 1978 the Tennessee Valley Authority (TVA) informed Sandra Wastler that while excavating the foundation for the Phipps Bend, Unit 2 fuel building a reverse fault was discovered. In accordance with guidelines described in my August 14, 1976 memo to Olan Parr, TVA submitted the enclosed report providing a detailed description of the reverse fault and discussion of the fault's relationship to regional geology. As a result of the staff's review of this report, Fault #5 is considered to be associated with deformational activity related to the regions early geologic history, some time before 225 million years before present. Based on the evidence to date, this fault is not capable within the meaning of Appendix A to 10 CFR Part 100. Due to the apparent association of Fault #5 to the faults previously described, the staff does not feel a site visit is necessary.

Lynne W. Heller
for J. Carl Stepp, Chief
Geosciences Branch
Division of Site Safety and
Environmental Analysis

Enclosure:
As stated

cc: R. Boyd
R. DeYoung
D. Muller
R. Denise
R. Jackson

S. Miner
✓ S. Goldberg
PDR
Local PDR

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790103

Dupe

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

830 Power Building

NOV 16 1978

Mr. Harold R. Denton, Director
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Denton:

In the Matter of the Applications of) Docket Nos. STN 50-553
Tennessee Valley Authority) STN 50-554

In a November 13, 1978, telephone conversation, Jerry Wills of my staff notified Sydney Miner of your staff that an additional fault had been discovered at the Phipps Bend Nuclear Plant in the unit 2 fuel building area. A conference call was subsequently made to the NRC geologist, Sandy Wastler, on November 14, 1978, to discuss the fault. The enclosure provides a detail description of this feature.

We do not consider this minor fault to be capable within the meaning of Appendix A to 10 CFR Part 100. In compliance with our previous commitments, evidence of this feature in the unit 2 fuel building area will be held for your investigation until December 1, 1978.

Very truly yours,

J. E. Gilleland
J. E. Gilleland
Assistant Manager of Power

Enclosure

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ENCLOSURE

PHIPPS BEND NUCLEAR PLANT
DOCUMENTATION OF FAULT IN UNIT 2 FUEL BUILDING EXCAVATION

The fault is located in the northern half of the unit 2 fuel building area on the east wall of the spent fuel storage pool excavation (see attached sketch).

The fault is a reverse fault dipping 84° to the north and striking $N45^{\circ}E$, coinciding with the regional orientation of the rock strata. The fault extends 65 feet to the west of the east wall where it is covered with debris and extends eastwardly beyond the excavation. The fault is defined by a calcite filled fracture offsetting beds which dip 68° to the south approximately 6 inches. It is located 95 feet north of the first fault reported in unit 2 reactor building and 106 feet north of unit 2 east-west baseline.

The fault shows no evidence which would indicate that it did not occur during the early tectonic development of the Paleozoic (250+ million years) folding and faulting in this area.

The strike of the fault ($N.45^{\circ}E.$) conforms with the regional trend of the Paleozoic rock strata (about $N.50^{\circ}E.$) and trends beneath undisturbed Quaternary high-level terrace deposits located to the northeast. Folding and minor faulting within the foundation bedrock was expected and is considered to be typical of the well-documented regional folding and faulting of Paleozoic age. Because of the minor offset and the overlying Quaternary terrace deposits, it is not considered capable of producing ground offsets or of generating earthquakes. Therefore, we do not classify it as a capable fault within the meaning of Appendix A to 10 CFR Part 100.



View East. Fault located on north end of
spent fuel storage pool - Unit 2 Fuel Building.
Approximately 106 feet north of east-west baseline.

