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,

for J. M. Mills
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

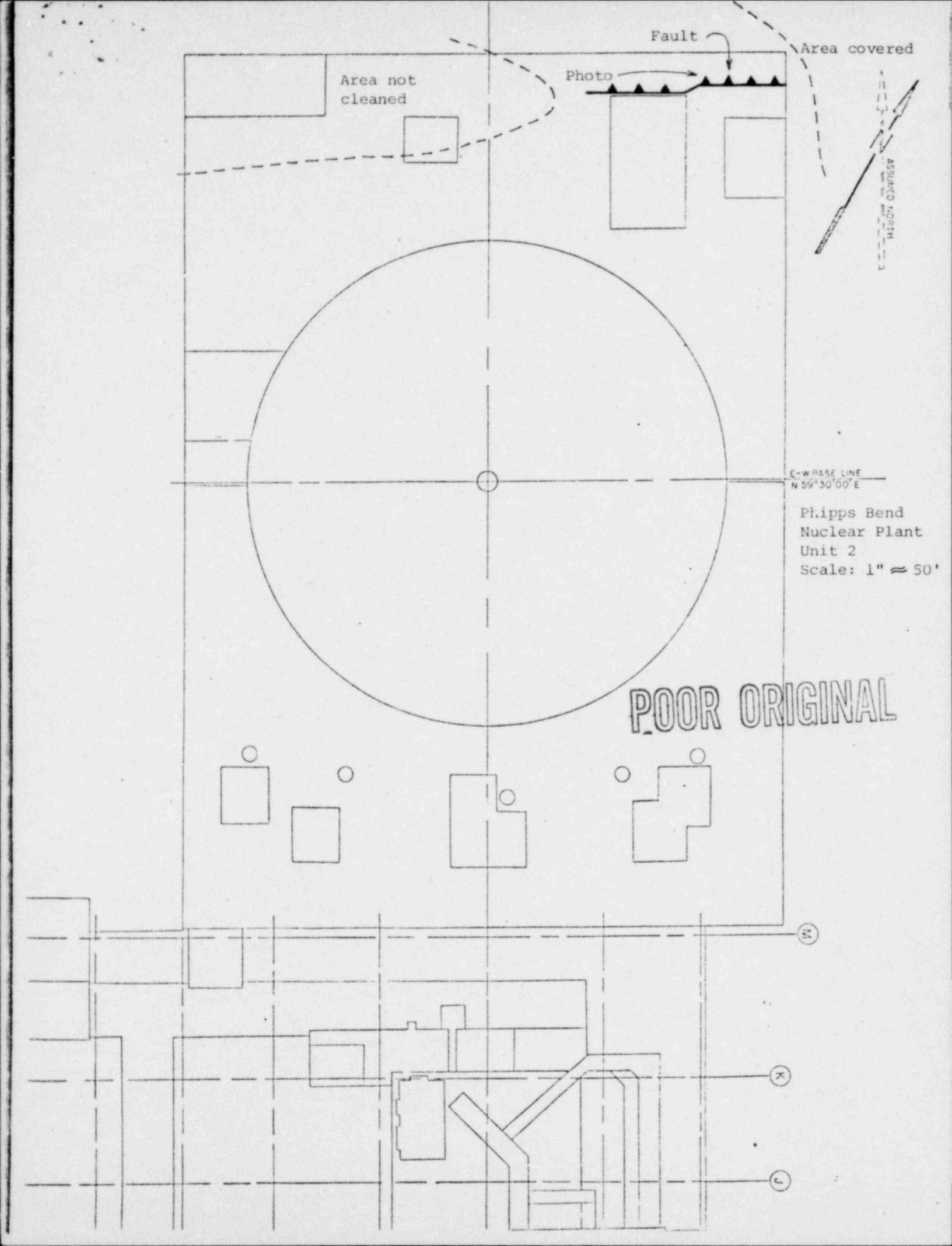
The fault is located in the northern half of the unit 2 fuel building area on the east wall of the spent fuel storage pool excavation (see attached sketch).

The fault is a reverse fault dipping 84° to the north and striking N45°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°E.) conforms with the regional trend of the Paleozoic rock strata (about N.50°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.


Fault
Area covered
Area not cleaned
Photo
ASSUMED NORTH
E-W BASE LINE
N 59°30'00" E
Phipps Bend
Nuclear Plant
Unit 2
Scale: 1" ≈ 50'
POOR ORIGINAL