

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

August 14, 1979

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 Application of	)	Docket Nos. STN 50-553
Tennessee Valley Authority	)	STN 50-554

In a July 20, 1979, telephone conversation, Jerry Wills of my staff notified Bob Benedict of your staff that an additional fault had been discovered at our Phipps Bend Nuclear Plant in the unit 2 turbine building area. A conference call was subsequently made to the NRC geologist, Sandra Wastler, on July 20, 1979, to discuss the fault. The enclosure provides a detailed 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.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

*L. M. Mills*  
L. M. Mills, Manager  
Nuclear Regulation and Safety

Enclosure

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PHIPPS BEND NUCLEAR PLANT  
Transverse Fault In Unit 2 Turbine Building  
Extension Of Fault Number 6

Top of rock cleaning in Unit 2 turbine building has exposed a transverse fault, located between T-3 and T-4 lines at J-line, in the northeast portion of the building (see attached map and photographs).

The fault is an extension of fault number 6 discovered in the unit 2 CCW trench, and reported to NRC in our letter from J. E. Gilleland to Harold R. Denton, dated April 11, 1979.

The fault is defined by a weathered zone, approximately 4 inches wide, which strikes N 54° W for a distance of 15 feet and dips 84° to the northeast. Bedding is offset an average of 4 inches at its intersection with the fault zone. The fault transitionally terminates into a near vertical joint which can be traced to the south to fault number 6 and to the north approximately 30 feet where the top of rock has not been cleaned.

This fault is an extension of fault number 6, to which it is connected by a series of en echelon joints. As these joints developed in relatively plastic rock, some of the strata were merely folded, but in the more brittle zones, the strata were offset by faulting. A detailed geologic description of fault number 6 is given in the above referenced letter.

This fault, having been stable for 250 million years, is not considered to be capable of producing ground offsets or generating earthquakes. Therefore, we do not consider it as a capable fault, within the meaning of Appendix A to 10 CFR part 100.

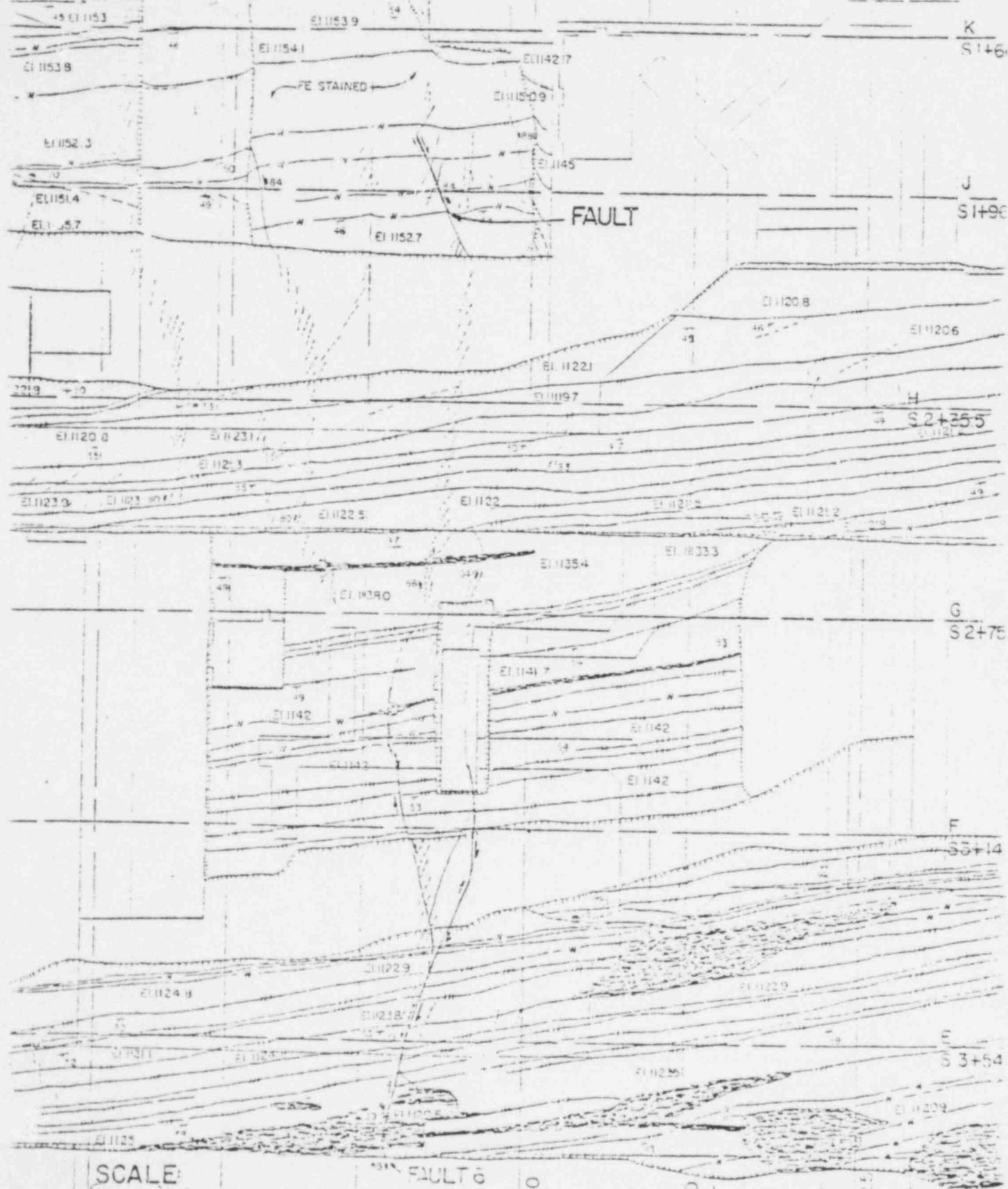
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**POOR ORIGINAL**

UNIT 2 TURE BUILDING

FAULT 10



SCALE:

1"=20'

800

FAULT 6

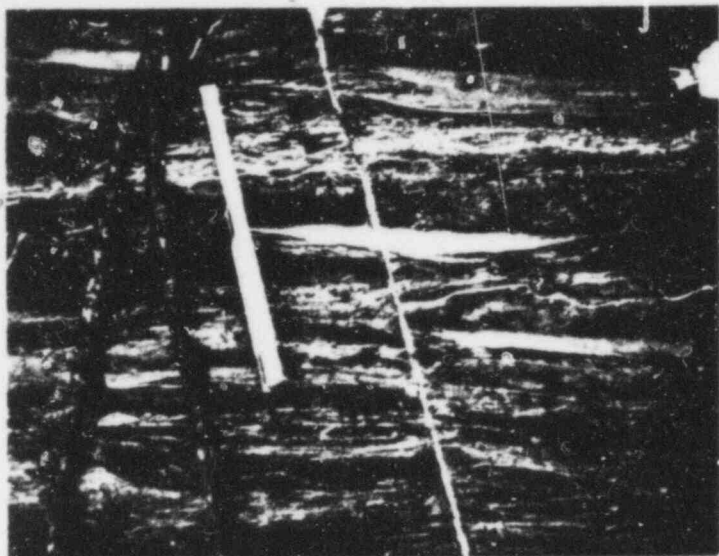
E3+40

E3+70

POOR ORIGINAL

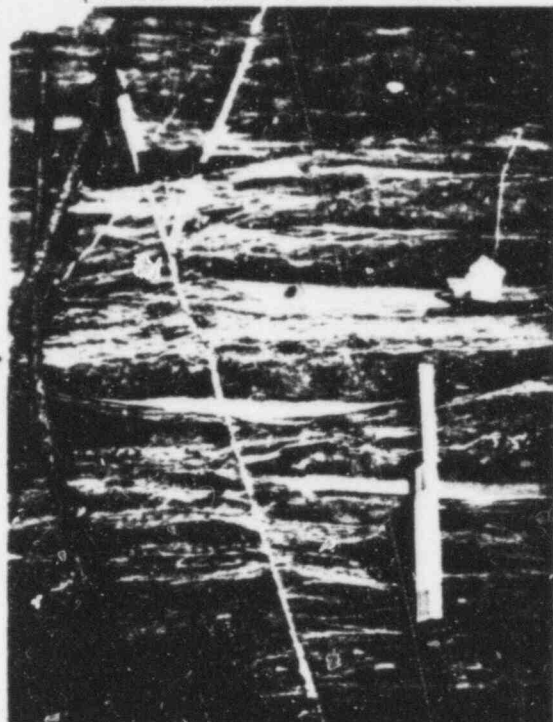
FAULT AT E3+25+JLINE

VIEW NORTH



T.B.2

FAULT AT E3+25+JLINE



VIEW NORTH

T.B.2

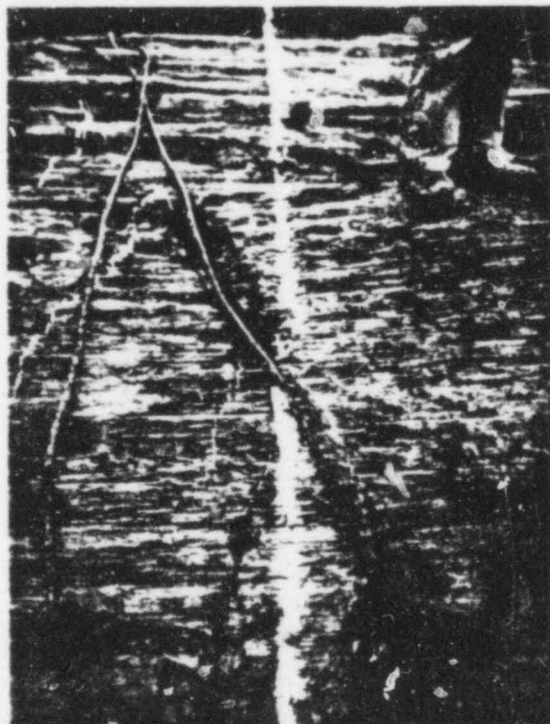
FAULT AT 3+25+ JLINE



VIEW NORTH

T.B.2

FAULT AT E3+25+JLINE



VIEW NORTH

T.B.2

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POOR ORIGINAL