

TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE
37401

November 7, 1974

ANNIVERSARY
OF PEOPLE IN
PARTNERSHIP

Mr. Donald F. Knuth, Director
Directorate of Regulatory Operations
U.S. Atomic Energy Commission
Washington, DC 20545

Dear Mr. Knuth:

BROWNS FERRY NUCLEAR PLANT UNIT 3 - POTENTIAL DEFICIENCY ON
LAMINATIONS IN MAIN STEAM LINE PIPING TEE

Initial report of the subject potential deficiency was made
on September 9, 1974, and was followed by our October 7, 1974,
interim report. In compliance with paragraph 50.55(e) of
10 CFR Part 50, we submit the enclosed final report of the
potential deficiency.

Very truly yours,

J. E. Gilleland
J. E. Gilleland

Assistant to the Manager of Power

Enclosure
CC (Enclosure):

Mr. Norman C. Moseley, Director
Directorate of Regulatory Operations
U.S. Atomic Energy Commission
Region II - Suite 818
230 Peachtree Street, NW.
Atlanta, Georgia 30303

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ENCLOSURE

BROWNS FERRY NUCLEAR PLANT UNIT 3

LAMINATION OF MAIN STEAM LINE "C" TEE

FINAL REPORT - NOVEMBER 6, 1974

On September 9, 1974, an initial report was made on the subject deficiency by R. T. Hathcote to N. Economos, AEC-DRO Inspector, Region II, during an inspection by N. Economos.

Description of Occurrence

On September 6, 1974, during weld preparation on the subject tee, an indication of a lamination was found in the weld prep area. A complete ultrasonic examination of the tee was performed on September 7 and 8.

Arrangements have been made to borrow a replacement tee from the Pennsylvania Power and Light Company. The replacement tee has been subjected to nondestructive tests with satisfactory results. The replacement tee is currently being inspected again at the site and will be installed once it is determined that all these test results are satisfactory.

Cause of Deficiency

The subject tee was fabricated from a rolled plate of carbon steel. The laminations were originally caused by the rolling process which produced the carbon steel plate.

The defective tee was manufactured by the M. W. Kellogg Company and supplied by General Electric as part of the Browns Ferry unit 3 nuclear steam supply system contract with TVA. The replacement tee is also being supplied by the M. W. Kellogg Company.

Safety Implication

It has not been determined that the lamination, had it not been detected, would have caused cracking in the tee. Any cracking would have resulted in a steam release much smaller than that associated with the main steam line break accident. Results of the analysis of the main steam line break accident are presented in Section 14.6.5 of the Browns Ferry Nuclear Plant PSAR.

Corrective Action

The defective tee was replaced with a tee of the same type from the same manufacturer. The replacement tee, however, was thoroughly inspected before shipping and is being inspected again prior to its installation at Browns Ferry. The other main steam line tee in line

results.

Means Taken to Prevent a Recurrence

The subject tee was originally procured according to a now outdated standard. The new standard requires testing on all such equipment and establishes maximum allowable limits on laminations.