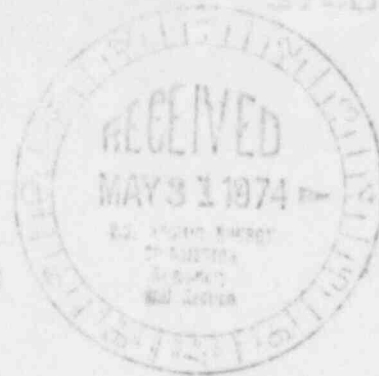


May 28, 1974

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Director, Division of Materials Licensing
 U.S. Atomic Energy Commission
 Washington, DC 20545

Dear Sir:

TENNESSEE VALLEY AUTHORITY - BROWNS FERRY NUCLEAR PLANT -
 FACILITY OPERATING LICENSE DPR-33

This report is being filed to inform you of a leaking sealed source
 licensed in DPR-33.

The source involved is as follows:

Radionuclide - Strontium-90
 Nominal radioactivity - 6 millicuries
 Source manufacturer - New England Nuclear Corporation
 Source model - NER-9073
 Capsule number - 313-48
 Date of manufacture - March 7, 1974
 ANSI N5.10-1968 performance classification C33311

This source was received by Browns Ferry Nuclear Plant on March 12,
 1974. The shipping containers were surveyed at this time and found to be
 free of significant contamination. A Certificate of Sealed Source Test
 from New England Nuclear Corporation accompanied the source which indi-
 cated less than 0.005 microcurie was detected using ANSI N5.10-1968 test
 procedure B.2.1 and indicating seal integrity using ANSI N5.10-1968 test
 procedure B.2.4. These tests were performed on March 7, 1974. The source
 inner shipping container was not opened at the time of receipt, and the
 source was stored in the locked chemical laboratory storage vault.

On April 18, 1974, the source was removed from storage preparatory to
 installation in a cutie-pie check source holder. The source was smear
 surveyed, and results showed less than 0.005 microcurie of removable
 contamination.

On May 16, 1974, before calibration of the check source, a smear survey
 of the source holder was performed. The survey indicated removable
 contamination although less than 0.005 microcurie was found. The source
 was then removed and thoroughly cleaned with strontium carrier solution.
 The cleaning solution was counted and indicated 0.0234 microcurie. A

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Director, Division of Materials Licensing
May 28, 1974

TENNESSEE VALLEY AUTHORITY - BROWNS PERRY NUCLEAR PLANT -
FACILITY OPERATING LICENSE DFR-33

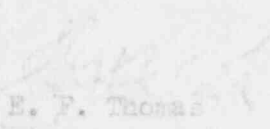
visual examination of the source by the plant health physics supervisor could detect no indication of cracking or damage. Since the possibility existed that the contamination was due to external sources, the source capsule was stored in a vial to be rechecked.

A smear survey performed on May 22, 1974, indicated the presence of 0.285 microcurie of removable contamination, thereby confirming the source of contamination to be a leak.

The vendor was informed by telephone. The source was disposed of in the normal solid radioactive waste disposal system. The source holder was decontaminated to less than 100 dpm/100 cm² removable contamination.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


E. F. Thomas
Director of Power Production

CC: Mr. Norman C. Moseley, Director
Region II Regulatory Operations Office, USAEC
230 Peachtree Street, NW., Suite 818
Atlanta, Georgia 30303