TENNESSEE VALLEY AUTHORITY

CHATTANOOGA TENNESSEE 37401 LANTA, GEORGIA
716 Edney Building

December 11, 1981

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U.S. Nuclear Regulatory Commission Region II Office of Inspection and Enforcement 101 Marietta Street, NW, Suite 3100 Atlanta, Georgia 30303

Gentlemen:

INCIDENT INVOLVING OHMART NUCLEAR SOURCE - TVA'S BERLAND STEAM PLANT - NRC BYPRODUCT LICENSE 41-08165-04

On December 8, 1981, at 4:15 p.m. CST, Paul Knapp, of TVA, reported an incident to A. Morrongiello, of your staff. The report was filed in accordance with NRC's "Regulatory Guide, Rules and Regulations, Part 20, Standards for Protection Against Radiation, Standard 10CFR20.403(b)." The details of this incident are as follows:

On December 7, 1981, at approximately 9:15 p.m. CST a 50-millicurie CS-137 Ohmart gauge source fell from its mount at TVA's Cumberland Steam Plant, Cumberland City, Tennessee. This source is licensed under NRC Byproduct Material License 41-08165-04. The source fell from its mount into the coal surge hopper. Once in the hopper, the source passed through the crushing cycle until it was rejected. The shutter on the device was destroyed. The source was undamaged in the source holder. A health physics surveillance was conducted by Larry R. Ratliffe, Allyn Van Patten, and Mr. Knapp, of TVA's Radiological Hygiene Branch. Results of the survey verified that there was no damage or leakage of the source.

An appraisal of personnel exposures was conducted, and it was estimated to be less than 20 millirems to each of the two individuals involved.

The source was shielded so that the contact dose rate is approximately 80 millirems per hour on contact (the unshielded dose rate is 1.2 rems per hour at the face of the source holder and 16 millirems per hour at three feet). The source is stored in a restricted area, and arrangements are being made to return the source to the source supplier.

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We are in the process of inspecting and repairing, as necessary, the mounting of all nuclear gauges in this service at Cumberland. This will ensure that the mounting is sound and should keep a similar incident from happening. We expect this work to be completed by December 15, 1981.

Questions regarding this matter can be directed to Stanley W. Coffman in Chattanooga at 615-751-3395 or FTS 858-3395.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

H. S. Fox

Director of Fossil and Hydro Power