TENNESSEE VALLEY AUTHORITY
CHATTANOOGA, TENNESSEE 37401

400 Chestnut Street Tower II

May 4, 1981

Director of Nuclear Reactor Regulation
Attention: Mr. A. Schwencer, Chief
Licensing Branch No. 2
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Dear Mr. Schwencer:

In the Matter of) Docket No. 50-327
Tennessee Valley Authority)

The following is a special report required by section 3.11.4 of the Sequoyah Nuclear Plant (SNP) technical specifications.

During the first quarter of 1981, the calculated dose to bone of 28 mrem (see Enclosure 2) for a hypothetical individual exceeded twice the limits of specifications 3.11.1.2.a and 3.11.1.2.b. Subsequently, the limits of specification 3.11.4 are assumed to have been exceeded over 12 consecutive months because total calculated doses via effluents and direct radiation from SNP may have exceeded 25 mrem to a real individual. We are unable to determine whether the doses calculated to the hypothetical maximum individual were actually received by a real individual because the pathway of primary importance is the ingestion of fish caught in Chickamauga Reservoir. The individual is assumed to consume 50 pounds of such fish over the last 12 months.

Enclosure 1 explains the cause of the limits being exceeded and the actions taken to prevent recurrence.

Very truly yours,

TENNESSEE VALLEY AUTHORITY

L. M. Mills, Manager
Nuclear Regulation and Safety

Sworn to and subscribed before me
this 4th day of May 1981
Paulette N. White
Notary Public
My Commission Expires 9-5-84

Enclosures
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ENCLOSURE 1

SEQUOYAH NUCLEAR PLANT UNIT 1
SPECIAL REPORT

In January, the liquid holdup tanks at the Sequoyah Nuclear Plant (SNP) were sampled and checked for compliance with 10 CFR 20 by a gamma counting system. After the test results were determined satisfactory, the tanks were released through the radwaste system without processing.

In the first week of February, the composite of samples taken in January was analyzed for P-32 as required by the technical specifications. It was then determined that the levels of P-32 that were previously and unknowingly released resulted in calculated doses in excess of 40 CFR 190 limits. All releases were terminated until a demineralizer was installed to process all liquids from the holdup tanks before being released. We therefore anticipate no further violations of technical specifications 3.11.1.2.

ENCLOSURE 2
SEQUOYAH NUCLEAR PLANT-UNIT 1
SPECIAL REPORT

CALCULATED DOSES (mrem) FOR 12 CONSECUTIVE MONTHS FROM

RELEASES FROM SEQUOYAH NUCLEAR PLANT

	TOTAL BODY		ORGAN (BONE)	
	Liquid Releases	Releases to Atmosphere	Liquid Releases	Releases to Atmosphere
Second Quarter 1980	2.2×10^{-2}	0.0	5.2×10^{-1}	1.9×10^{-2}
Third Quarter 1980	3.5×10^{-1}	1.1×10^{-2}	9.1×10^{0}	0.0
Fourth Quarter 1980	5.3×10^{-1}	1.2×10^{-1}	1.4×10^{1}	1.7×10^{-1}
First Quarter 1981	1.1×10^{0}	2.6×10^{-1}	2.8×10^{1}	2.7×10^{-1}

	TOTAL BODY	ORGAN (BONE)
12 month total for all releases	2.4	52

Note: There was no identified direct radiation exposure to individuals offsite resultant from plant operations.