

TENNESSEE VALLEY AUTHORITY

CHATTANOOGA, TENNESSEE 37401

5N 157B Lookout Place

MAR 18 1988

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Gentlemen:

In the Matter of) Docket Nos. 50-327
Tennessee Valley Authority) 50-328

SEQUOYAH NUCLEAR PLANT (SQN) - EQE ENGINEERING (EQE) REVIEW OF
CATEGORY I(L) PIPING FOR POTENTIAL HAZARDS BECAUSE OF THE DIFFERENTIAL
DISPLACEMENT OF INDEPENDENT ADJACENT STRUCTURES

Reference: TVA letter to NRC dated February 29, 1988, "Sequoyah Nuclear
Plant (SQN) - Problem Identification Report (PIR) SQNCEB8795
- Consideration of Differential Seismic Anchor Movements
Between Buildings"

Enclosed is additional information requested by Winston Liu, of your
staff, relative to SQN Problem Identification Report (PIR) SQNCEB8795.
This PIR identified Civil Engineering Branch/Engineering Mechanics Group
concerns relative to Alternate Analysis Category I and I(L) piping and
instrument and control lines spanning between buildings and the requisite
consideration of differential seismic anchor movements for proper
analysis of these lines.

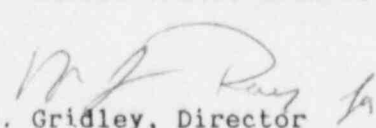
The referenced letter provided TVA's discussion of this condition and the
programs implemented at SQN to reconcile it and prevent future recurrence.

Enclosed is the EQE assessment of this condition at SQN units 1 and 2 for
your information and review.

If any additional questions exist, please telephone M. R. Harding at
(615) 870-6422.

Very truly yours,

TENNESSEE VALLEY AUTHORITY


R. Gridley, Director
Nuclear Licensing and
Regulatory Affairs

Enclosure
cc: See page 2

D030
11

8803240454 88 318
PDR ADOCK 05 0027
P 001

U.S. Nuclear Regulatory Commission

MAR 18 1988

cc (Enclosure):

Mr. K. P. Barr, Acting Assistant Director
for Inspection Programs
TVA Projects Division
U.S. Nuclear Regulatory Commission
Region II
101 Marietta Street, NW, Suite 2900
Atlanta, Georgia 30323

Mr. G. G. Zech, Assistant Director
for Projects
TVA Projects Division
U.S. Nuclear Regulatory Commission
One White Flint, North
11555 Rockville Pike
Rockville, Maryland 20852

Sequoyah Resident Inspector
Sequoyah Nuclear Plant
2600 Igou Ferry Road
Soddy Daisy, Tennessee 37379



EQE ENGINEERING

CORPORATE OFFICE

SAN FRANCISCO

REGIONAL OFFICES

SAN FRANCISCO

LOS ANGELES

NEW YORK

BOSTON

February 17, 1988

Mr. J.L. Purkey
Tennessee Valley Authority
Office of Engineering
400 W. Summit Hill Drive 5-132 SB-K
Knoxville, TN 37902

EQE Transmittal No.
51001.01-0-006

Subject: EQE Review of Class 1(L) Piping at Sequoyah Units 1 & 2
for Potential Hazards Due to the Differential
Displacement of Independent Adjacent Structures.

Reference: "Evaluation and Resolution of Category 1(L) Piping
Hazards", EQE Report Number 8529-01-04-001, January
1987

Dear Joe:

Per our discussion of 2-17-88, this letter summarizes the EQE evaluation of the subject piping concern. Differential displacement of piping anchor points has been shown by experience data to be a cause of damage if the piping does not have sufficient flexibility to accommodate the differential anchor point motion. For this reason, differential motion of anchor points was an integral part of the EQE evaluation.

The walkdown team considered the Sequoyah postulated building deflections in areas where relative deflection could occur. Areas between the Auxiliary Building and the Reactor Building have a maximum expected relative displacement of less than one-half inch. Other areas between the Auxiliary Building and the Turbine, Auxiliary Equipment and CDWE Buildings as well as the annulus area between the steel containment and the Shield Building were reviewed for Class 1(L) piping rigidly supported between two structures. The walkdown team also considered piping for attributes which might intensify differential motion problems such as threaded and mechanically-coupled piping, pipe bends and elbows, fragile piping appurtenances and corrosion.

Mr. J.L. Purkey
February 17, 1988
EQE No. 51001.01-0-006
Page 2 of 2

Few instances of credible differential motion hazards between independent adjacent structures were identified by the EQE walkdown. These were documented for further evaluation by EQE and found to be acceptable.

Please let me know if I can be of further assistance in this matter.

Very truly yours,

John O. Dizon for

Steven P. Harris
Project Manager
EQE Engineering

gz/sqnpdm

cc: Bill Kagay (teletype number 615-751-0247, verify -0467)

EQE