

Exhibit III

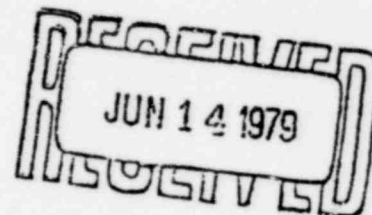
PUBLIC SERVICE COMPANY OF OKLAHOMA
A CENTRAL AND SOUTH WEST COMPANY

P.O. BOX 201 / TULSA, OKLAHOMA 74102 / (918) 583-3611



Public Service Company of Oklahoma
Black Fox Station

June 7, 1979o



Mr. Joseph Gallo
Isham, Lincoln, & Beale
1050 17th St. N.W., 7th Floor
Washington, D. C. 20036

Dear Mr. Gallo:

Attached for your information is a letter to PSO summarizing the status of the Black & Veatch evaluation of a problem due to dynamic loads imposed upon piping systems by containment vessel responses. This letter summarizes information presented to PSO in a management information meeting on May 31.

PSO is considering the B&V evaluation and recommendations and will provide B&V with our guidance in the near future.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'John B. West'.
John B. West
Manager, BFS Engineering

JBW:dm

Attachment

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1045 003



CENTRAL AND SOUTH WEST SYSTEM

Central Power and Light
Corpus Christi, Texas

Public Service Company of Oklahoma
Tulsa, Oklahoma

Southwestern Electric Power
Shreveport, Louisiana

West Texas Utilities
Arlene, Texas

BLACK & VEATCH
CONSULTING ENGINEERS

6212DIN28227
TEL. (913) 967-2000
TELEX 42-6263

1500 MEADOW LAKE PARKWAY
MAILING ADDRESS: P.O. BOX NO. 8403
KANSAS CITY, MISSOURI 64114

Public Service Company of Oklahoma
Black Fox Station
Reactor Building Containment Vessel

B&V Project 6212
File: 6212.215.3230.21 *φ*
June 5, 1979

Public Service Company of Oklahoma
P.O. Box 201
Tulsa, Oklahoma 74102

Attention: Dr. J. B. West
Manager, BFS Engineering

Gentlemen:

The purpose of this letter is to summarize the status of our design efforts regarding the phenomena of containment vessel ringing. This phenomena refers to the calculated responses associated with safety/relief valve (S/RV) loading combinations. These responses are characterized by small deflections, moderate containment stresses, and high acceleration values. Although containment vessel ringing does not significantly effect the design of the containment vessel, the acceleration portion of the response does govern the design of those piping systems and steel framing that are attached to the vessel.

As you recall, General Electric completed their definition of S/RV related design criteria in the spring of 1976 and received technical concurrence from the NRC Staff in July of 1976. These criteria included the definition of peak bubble pressure for all S/RV applications in suppression pool boundary loads for the design of structures. Suppression pool boundary loads for determining building response required further work. In November of 1977 General Electric presented a seminar on the NSSS Load Adequacy Program which included proposed procedures for evaluating S/RV loads and determining building response. During the application of these procedures, B&V identified the response phenomena which was later identified as containment vessel ringing. At that point in time, May of 1978, the primary areas of engineering investigations were the resultant stresses in the vessel shell which were found to be moderate in magnitude. Shortly thereafter, it was recognized that although ringing does not significantly effect the design of the containment vessel, it did govern the design of attachments to the vessel.

Two approaches were initiated to resolve the ringing phenomena. The first approach was to completely review the method of analysis. The intent of this effort was to develop a more realistic analytical solution to the concern and take advantage of on-going General Electric Company's confirmatory testing relating to S/RV actuation. The second was to investigate the potential hardware fixes which would reduce the effects or mitigate the vessel response.

1045 004

Public Service Company of Oklahoma
Black Fox Station

-2-

B&V Project 6212
June 5, 1979

In late March of 1979, GE informed PSO/B&V that GE did not recommend analytical solutions for resolving the ringing phenomena. GE felt that the cost/benefit ratio of a research and development program to resolve the matter were too high, and therefore, recommended hardware fixes to mitigate vessel response. At this point in time B&V accelerated investigations into alternate ways to mitigate the vessel response. The options reviewed and recently discussed with you included the following:

1. Modifying the free standing steel containment vessel by the addition of vertical stiffeners and a second concentric shell plate and modifying the existing horizontal stiffeners to provide a large bulkhead on the containment exterior in the suppression pool area.
2. Extending the foundation mat concrete up the outside of the containment to the top of the suppression pool. The containment vessel would begin at the top of the extended base mat. The vessel shell would be supported by the extended mat and be anchored in the existing basement.
3. Adding horizontal, radial pipe support struts which the containment vessel stiffening system to the shield building.

We have completed our review of the options and taking into consideration the current project schedule we recommend implementation of option 3, adding horizontal, radial pipe support struts between the containment vessel and the shield building. These struts restrain containment vessel motion and thereby reduce structural response of the vessel. The containment vessel would function as a Class MC vessel with or without the supporting struts. The influence of the struts on the vessel would be considered in the design of the vessel, however, the struts would not be relied upon to reduce the design requirements for the containment vessel. The struts would be relied upon only to reduce the structural response of the structure and the effects of the response on the attachments to the vessel.

We are proceeding with the development of revised structural response data and the incorporation of the strut design into the containment vessel, shield building, and the foundation mat. Currently, we do not anticipate significant changes to any of these structures other than the addition of embedments in the shield building and modification of reinforcing steel and wall thickness in the lower region of the shield building.

Should you have any questions concerning the course of action outlined above, please contact us.

Very truly yours,

BLACK & VEATCH



C. J. Ross