

**TEXAS UTILITIES GENERATING COMPANY**  
SKYWAY TOWER • 400 NORTH OLIVE STREET, L.B. 81 • DALLAS, TEXAS 75201

Log # TXX-4644  
File # 10010  
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WILLIAM G. COUNCIL  
EXECUTIVE VICE PRESIDENT

December 16, 1985

Director of Nuclear Reactor Regulation  
Attention: Mr. Vince S. Noonan, Director  
Comanche Peak Project  
Division of Licensing  
U. S. Nuclear Regulatory Commission  
Washington, D.C. 20555

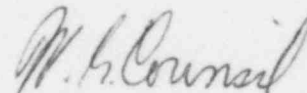
SUBJECT: COMANCHE PEAK STEAM ELECTRIC STATION  
DOCKET NOS. 50-445 AND 50-446  
CONTAINMENT ISOLATION DEPENDABILITY

Dear Mr. Noonan:

Attachment 1 and enclosure 1 are provided in response to NRC letter of November 9, 1984 requesting additional information concerning containment purge and vent valve operability.

Should you have additional questions in this matter, please contact this office.

Very truly yours,



W. G. Council

BSD/grr  
Attachment - 39 copies  
Enclosure - 4 copies

c - A. Vietti-Cook

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ATTACHMENT 1 TO TXX-4644

Response to letter from B. J. Youngblood (NRC) to M. D. Spence (TUGCo):

1. The postulated design basis accident which results in the worst case conditions relative to load predictions.

Response:

The postulated DBA which results in the worst loading on the 18 inch Posi-Seal International vent valves is a LOCA as described in FSAR Section 6.2 and 15.6.

2. If demonstration of valve operability is by analysis, the basis upon which the torque coefficients were determined.

Response:

The bases upon which the torque coefficients were determined are hydrodynamic torque converted to aerodynamic torque for compressible fluid flow, actuator torque, and frictional resistance. The correlation between hydrodynamic and aerodynamic torque coefficients is verified by data published in ISA transaction 68-923.

3. The effects of installation configuration, disc rotation, etc. on load determinations.

Response:

The effects of valves' installation configuration, disc rotation, and piping layout are detailed in the section "Determination of LOCA Torques," and Appendix "A" of the LOCA and Seismic Analysis (#34977SL-001) (See Item 4, below).

4. A stress analysis demonstrating structural integrity of internal parts and interface hardware for the valves and valve operators under the combined seismic and DBA/LOCA conditions.

Response:

LOCA and Seismic Analysis (#34977SL-001), Rev. B is enclosed.

5. The valve operator torque margins (i.e., the difference between the valve operator torque available and those combinations of torque developed that tend to oppose valve closure), at all angles of operation, and the rating of the valve operators.

Response:

See Table 1, (attached).

6. The operability status of the 48 inch valves (e.g., if the 48 inch valves will be locked closed during operating mode 1, 2, 3 and 4, they need not be addressed in responding to item 1 through 5 above; however, TUGCo must formally confirm that these valves will be locked closed in responding to this letter).

Response:

The 48 inch valves will be locked closed in modes 1, 2, 3 and 4 in accordance with Technical Specification 3.6.1.7.

TABLE-1

DISC ANGLE FROM CLOSED POSITION	SPRING TORQUE (1) (IN-LB)	VADPBC-09 (NON-PREFERRED)		VADPBC-10 (PREFERRED)	
		NET TORQUE OF FLOW (2) (IN-LB)	TORQUE MARGIN (IN-LB)	NET TORQUE OF FLOW (2) (IN-LB)	TORQUE MARGIN (IN-LB)
65	5614	1213	6827	5331	10945
60	5326	273	5599	2524	7850
50	4894	-1494	3400	-474	4420
40	4685	-2167	2518	-1752	2933
30	4643	-2391	2252	-2318	2325
20	4875	-2469	2406	-2460	2415
10	5426	-2486	2940	-2485	2941

## NOTES:

- (1) Obtained from pages C-4, C-6, C-8, C-10, C-12 and C-14 by interpolation. Minimum value selected.
- (2) Net closing torque = Aerodynamic torque minus frictional resistance. Positive values indicate closing torques, negative values indicate torques which tend to open the valve. These values are obtained from pages B-8, B-9, B-28, B-29, B-47, B-48, C-4, C-6, C-14, C-16 for non-preferred flow, and B-18, B-19, B-20, B-38, B-39, B-55, B-56, C-8, C-10, C-12 for preferred flow. Minimum value selected.