

December 14 : 84

*DCR 016*

Docket Nos. 50-317  
and 50-318

Mr. A. E. Lundvall, Jr.  
Vice President - Supply  
Baltimore Gas & Electric Company  
P. O. Box 1475  
Baltimore, Maryland 21203

Dear Mr. Lundvall:

In the process of reviewing your application dated December 22, 1983 regarding the containment vent/hydrogen purge system, we find that additional information is required. In order that we may continue our review, we request that you provide your response to the enclosed questions within 30 days following receipt of this letter.

This request for information affects fewer than ten respondents; therefore OMB clearance is not required under P.L. 96-511.

Sincerely,

James R. Miller, Chief  
Operating Reactors Branch No. 3  
Division of Licensing

Enclosure:  
As stated

cc w/enclosure:  
See next page

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Baltimore Gas and Electric Company

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CALVERT CLIFFS  
REQUEST FOR ADDITIONAL INFORMATION  
REGARDING THE HYDROGEN PURGE SYSTEM

We have reviewed the submittals of December 22, 1983, March 26, 1983 and September 19, 1984 with regard to the containment vent/hydrogen purge system isolation valves (MOV 6900 and MOV 6901). None of the referenced submittals specifically addresses the issue of whether or not these 4-inch gate valves are able to close against the buildup of pressure in containment in the event of a LOCA. In particular:

1. The licensee has not defined the maximum pressure resulting from the pipe break (LOCA or steam line) case postulated. Thus, the staff could not determine that this is the worst condition with regard to loads on the valve.

2. The licensee has not described in detail the methodology used for dynamic torque prediction and/or pressure related force predictions. The various factors affecting valve closure, such as stem or packing loads must be included in the methodology. The staff is not able to conclude that the methodology used is acceptable.

3. The licensee has not submitted a stress analysis report, for example, a stress analysis associated with a static deflection test or seismic analysis. The stress analysis considers the critical valve parts in the valve, applies the appropriate load or load combination, uses allowable stresses per applicable codes/standards or conservative values where codes/standards do not apply, and demonstrates that the allowable stresses are not exceeded. Thus, the staff can draw no conclusion about the integrity of the valve or the margins available during closing of the valve.

4. The licensee has not demonstrated that the operator has sufficient torque or force margin available to stroke and seat the gate from its initial open position under the accident condition postulated.

5. The licensee has not demonstrated that the torque or force absorption rating of the valve operator is not exceeded by torques or forces developed during closure, nor has he addressed the adequacy of the interfaces (e.g., stresses in bolts) between the operator and the valve.

6. The licensee, as a part of demonstrating reliability of containment isolation, has not demonstrated that the purge and vent valves and their operators are capable of withstanding the effects of the safe shutdown earthquake for which the plant was designed. A valid seismic qualification document was not submitted or referenced.