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MAR 6 1984

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SGEB Reading

MEMORANDUM FOR: Joe Youngblood, Chief  
Licensing Branch No. 1  
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Division of Licensing

FROM: George Lear, Chief  
Structural and Geotechnical Engineering Branch  
Division of Engineering

SUBJECT: REQUEST FOR FURTHER REVIEW OF MARK III CONTAINMENTS  
STRUCTURAL CAPACITY

Reference: Memorandum from W. Butler to G. Lear, dated February 3, 1984

The referenced memorandum requested the SGEB to assist the CSB in evaluating the containment capability for both positive and negative (reverse) pressure differentials. This evaluation was requested for four Mark III nuclear power plants, namely, Clinton, Perry, Grand Gulf, and Riverbend. The CSB also requested the SGEB to evaluate the drywell structural capability including the steel head for positive and negative pressure.

In order for the SGEB to evaluate the structural capabilities of the above mentioned structures for the requested plants, pertinent information must be provided by the plant owners. The evaluation will include, but not be limited to the following items.

1. Ultimate capacity in terms of psig of the containment shell for positive and negative (reverse) pressure.
2. Ultimate capacity in terms of psig of the drywell pressure retaining boundary for negative pressure.
3. If the refueling pool is filled with water during operation, the effect of the water on the drywell including the steel head should be considered.
4. In all cases the structural region or item which limits the pressure retaining capability should be identified as well as the particular failure mechanism.

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The evaluation should consider the pressures as static, not transient. However, the staff may request the transient pressure capability at a later date.

The requested positive and negative pressure capacities are for the following plants:

<u>Plant</u>	<u>Date Required</u>
Clinton	September 1984
Grand Gulf	September 1984
Perry	April 1984
Riverbend	April 1984

Your cooperation and assistance in obtaining the required information from the utilities is requested. The regulatory basis for this request can be provided by C. Stahle. For further information, contact Dr. C. P. Tan and Mr. Harold Polk of this branch.

George Lear, Chief  
Structural and Geotechnical  
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Division of Engineering

cc: W. Butler  
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