



# MISSISSIPPI POWER & LIGHT COMPANY

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NUCLEAR LICENSING & SAFETY DEPARTMENT

September 10, 1985

GWS-OG-157

Office of Nuclear Reactor Regulation  
U. S. Nuclear Regulatory Commission  
Washington, D. C. 20555

Attention: Mr. Harold R. Denton

Subject: Pool Swell Velocities in 1/3 Area Scale Tests Near the  
Containment Wall

Dear Mr. Denton:

In an informal meeting between the Containment Issues Owners Group (CIOG) and the Nuclear Regulatory Commission (NRC) staff on August 20, 1985 the CIOG committed to provide additional information concerning the pool swell velocity near the containment wall in the 1/3 area scale tests. Please find attached the following information:

- 1) Pool swell velocities from the conductivity probe string which is 2 feet from the containment wall for the 1/3 area scale PSTF tests 5801-5, 9, and 15. These tests were conducted with five feet of vent submergence.
- 2) An analysis to estimate the water column velocity using the pressure measurement near the containment wall at the roof of the PSTF for the 1/3 area scale tests 5801-5, 9 and 15.

This information demonstrates that pool swell velocities close to the containment wall are lower than velocities nearer the pool center.

It is the opinion of CIOG that the 1/10 scale tests indicate the general nature of clean and encroached pool swell behavior but are overdriven due to vent capacitance effects. These tests are useful to characterize the shape and behavior of encroached pool swell but do not accurately reflect true surface velocities or bubble breakthrough. Data from the 1/3 area scale tests are more representative of the true pool velocities and are bounded by current velocity and load specifications used for design. This conclusion has strong support from the data and analysis attached and information presented in the August 20 meeting.

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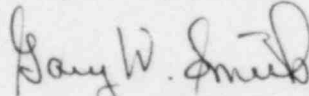
Member Middle South Utilities System

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This submittal was compiled by CIOG from the best information available for submittal to the Nuclear Regulatory Commission. The submittal is believed to be complete and accurate, but it is not submitted on any specific plant docket. The information contained in this letter and its attachments should not be used for evaluation of any specific plant unless the information has been endorsed by the appropriate member utility. CIOG members may individually reference this letter in whole or in part as being applicable to their specific plants.

Very truly yours,



Gary W. Smith, Chairman  
Containment Issues Owners Group

GWS:bms  
Attachment

cc: Mr. Jack Kudrick, Chief  
Containment Systems Branch  
U. S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
Washington, D. C. 20555

Mr. F. Eltawila  
Containment Systems Branch  
U. S. Nuclear Regulatory Commission  
Office of Nuclear Reactor Regulation  
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