MAY 15 1970

P. A. Morris, Director
Division of Reactor Licensing

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The enclosed review is submitted for inclusion in your report to the ACRS.

Original signed by
E. G. Case

Edson G. Case, Director
Division of Reactor Standards

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Enclosure:
Review - Davis-Besse

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CONTAINMENT DESIGN PRESSURE

The Davis-Besse Nuclear Power Station has a free volume of 2.8 x 10^6 cubic feet and a design pressure of 40 psig. The applicant has calculated the containment pressure transients following loss-of-coolant accidents for various sized breaks. The pressure buildup for a three square foot break area was calculated to have the maximum peak pressure of 36.0 psig.

Independent staff analyses of the three square foot break were made with the CONTEMPT Code. The same blowdown rate, surface areas and thicknesses, and material properties were used by the staff and the applicant. The CONTEMPT Code calculated a peak pressure of 37.8 psig when the Uchida condensing heat transfer coefficient was used and 36.8 psig when the Tagami correlation was used. The use of the Tagami correlation in containment pressure transient analysis has been accepted in previous license applications.

Based on our calculated peak pressure of 36.8 psig and a ten percent pressure margin, the Davis-Besse containment design pressure should be 40.5 psig. Consistent with our policy in recent reviews, we recommend that the design pressure be increased from 40.0 psig to 40.5 psig.