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ELECTRIC ENGINEERING
DEPARTMENT

May 25, 1983

Director of Nuclear Reactor Regulation
Attention: Mr. R. A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Calvert Cliffs Nuclear Power Plant
Units Nos. 1 & 2; Dockets Nos. 50-317 and 50-318
NUREG-0737 Item ILK.3.25
Effect of Loss of Alternating Current Power on Pump Seals

Gentlemen:

In recent discussions of our submittals on the subject topic, the NRC Staff has raised questions concerning the ability of our reactor coolant pump (RCP) seals to perform their intended function after an extended loss of component cooling water.

On a loss of off-site power, RCP's coast down. They cannot be restarted unless component cooling water is provided to the seals. With an extended loss of component cooling water, seal temperatures will ultimately rise to the reactor system temperature. Current procedures require that pumps be tripped prior to reaching excessive seal temperatures. If these temperature limits are violated, the affected reactor coolant pump may not be restarted until the pump seal is inspected.

Controlling the reinitiation of component cooling water flow is also important. We have procedures under development which provide guidance to the operator to preclude uncontrolled reinitiation of component cooling if pump seal temperature limits are exceeded. Failure of seal stages from thermal stress will thus be prevented.

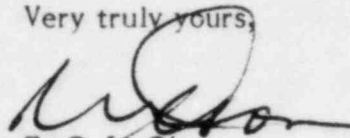
The Combustion Engineering Owners Group made a presentation to the NRC staff on April 14, 1983, supporting the position that our pump seals will perform their design function even without proper component cooling water flow. Cooling water flow to an operating RCP was secured for thirty minutes and the pump was operated after restoration of flow with acceptable results.

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We believe that these results support the conclusion that our course of action is effective and sufficient for the resolution of this Action Plan Item.

If you have any further questions in this matter, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in dark ink, appearing to read 'R. C. L. Olson', written over the typed name.

R. C. L. Olson
Principal Engineer

RCLO/MDP/pdy

cc: J. A. Biddison, Jr., Esq.
G. F. Trowbridge, Esq.
Mr. D. H. Jaffe, NRC
Mr. R. E. Architzel, NRC