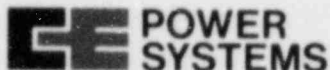


C-E Power Systems
Combustion Engineering, Inc.
1000 Prospect Hill Road
Windsor, Connecticut 06095

Tel. 203/688-1911
Telex 99297



Docket No.: STN 50-470F

June 7, 1983

LD-83-051

Mr. Darrell G. Eisenhut, Director
Division of Licensing
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Subject: Natural Circulation Cooldown Analysis for CESSAR-F

References: (A) Letter LD-82-078, A. E. Scherer to D. G. Eisenhut, dated
September 8, 1982
(B) Letter LD-83-025, A. E. Scherer to D. G. Eisenhut, dated
March 28, 1983

Dear Mr. Eisenhut:

On April 25, 1983, a meeting was held between Combustion Engineering (C-E) and the NRC on the natural circulation cooldown analysis for CESSAR-F. The purpose of the meeting was to discuss Staff concerns with the information submitted (References (A) and (B)) on the capability of the System 80TM NSSS to achieve cold shutdown with a Reactor Vessel Upper Head (RVUH) steam void. Specifically, the Staff noted that the analysis provided did not adequately demonstrate the capability to cooldown to Shutdown Cooling System entry conditions using only safety grade systems.

C-E proposed the following analysis to address the Staff's concerns. We would re-analyze the cooldown assuming (1) no letdown available, (2) the Reactor Coolant Gas Vent System is available to help reduce the void in the RVUH, (3) boration and, hence, reactor coolant system inventory shall be predicated on the shutdown margin requirements with all rods inserted, and (4) conservative mixing and condensation in the RVUH.

Reactor Systems Branch has expressed confidence that an analysis, as described above, would satisfy their concerns with the analytical part of the issue. Staff requirements for demonstration of this capability on the prototype System 80 plant will be addressed by the startup test program at the Palo Verde, Nuclear Generating Station 1. The specifics of the testing will be resolved by Arizona Public Service with the Staff.

C-E intends to provide the re-analysis of the natural circulation cooldown by July 29, 1983. If you have any questions on the scope or schedule, please feel free to contact me or Mr. G. A. Davis of my staff at (203) 688-1911, ext. 5207.

Very truly yours,

COMBUSTION ENGINEERING, INC.

G. A. Davis for
A. E. Scherer
Director
Nuclear Licensing

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cc: G. Meyer (Project Manager / USNRC)

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