BALTIMORE GAS AND ELECTRIC COMPANY
GAS AND ELECTRIC BUILDING
BALTIMORE, MARYLAND 21203

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

August 17, 1979

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

Attention: Mr. Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors

Subject: Calvert Cliffs Nuclear Power Plant
Unit No. 1 & 2, Docket No. 50-317 & 50-318
Fire Protection Program, NRC Review
File: 013-261-0, L-037-F

Reference: (1) Draft Safety Evaluation Report by the Office of Nuclear Reactor Regulation
(2) Staff/Licensee Discussions held July 11, 24 & 31, 1979
(3) BG&E letter dated August 6, 1979 from Lundvall to Reid

Gentlemen:

The enclosures attached supplement information and data previously furnished with reference (3) above. The referenced letter was in response to a request for information and data relative to staff positions identified in Section 3.3 of the Draft Safety Evaluation Report (DSER).

Very truly yours,

J. W. Gore, Jr. for
A. E. Lundvall, Jr.

cc: J. A. Biddison, Esquire
G. F. Trowbridge, Esquire
Messrs. E. L. Conner, Jr. - NRC
J. W. Brothers, Bechtel

3.3.36 INSTRUMENT AIR (4.15)

We will require the licensee to:

(1) Provide a detailed information which supports the statement that the operation of the charging system valves are required only following a LOCA, and

(2) Provide the results of an analysis which demonstrate that the transient caused by the loss of control air to the salt water valves would not have a detrimental effect on the salt water pumps, or any adverse effect on the plant safety. The analysis should take into account a possible delay in the operator's action.

RESPONSE

(1) The charging system loop isolation valves, CVC518 and CVC519, are normally open. Both valves fail open upon loss of control air. Additionally, CVC519 is paralleled with a flow actuated bypass check valve sized to pass full charging flowrate, thereby assuring the availability of a charging flow path even if CVC518 and CVC519 were to be shut. This charging flow path would also be available following a LOCA, although no credit is taken for this capability in the safety analysis.

(2) Loss of control air to the saltwater system valves causes the service water heat exchanger and component cooling heat exchanger inlet and outlet valves to fail open, thereby insuring the continued availability of these heat exchangers. The salt water system is divided into two subsystems, each subsystem consisting of one component cooling and one service water heat exchanger supplied by one salt water pump. Upon loss of control air, the throttling valves fail open allowing the pumps to operate at full flow. This is analagous to the flow rate experienced during actuation of SIAS. A test and analysis found the maximum salt water flow from one pump (i.e. one subsystem) to be 27,000 gpm. The pump manufacturer's certified pump performance curve shows a maximum pump flow of 28,000 gpm. The greatest flow anticipated would be less than the maximum limit for the pump, thus allowing extended operation of the pump in the event of delay of operation action. In addition, a functional test of the Engineered Safety Features Actuation System including SIAS is performed each refueling as required by Technical Specifications with no detrimental effects on the saltwater pumps or plant safety.

3.3.39 REROUTING HYDROGEN PIPING (5.4, 5.8, 5.9)

We will require the hydrogen piping in the referenced plant areas out of the areas and other safety-related plant areas, or provide other additional protection.

RESPONSE

It is our intent to provide additional protection to the safety-related areas in the aux. building containing hydrogen piping by installing an excess flow stop valve in line to the hydrogen supply to the aux. building. This valve would serve to automatically secure hydrogen to the building in the event of a piping system rupture. We would like to point out that the chance of a pipe rupture occurring is highly unlikely for the following reasons:

1. The system has been built to the following codes:

   a. NFPA No. 50A-1969, Gaseous Hydrogen Systems at Consumer Sites,

   b. NFPA No. 54-1969, National Fuel Gas Code.

2. With the exception of pipefittings associated with the volume control tank pressure regulator, all system piping contained in the aux. building is welded.

3. Normal system operating pressure is well below pipe schedule design pressure, e.g., HB-21 pipe, 375 psig design/200 psig operating, HC-46 pipe, 175 psig design/ 40 psig operating.