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BALTIMORE GAS AND ELECTRIC COMPANY

GAS AND ELECTRIC BUILDING
BALTIMORE, MARYLAND 21203

July 16, 1979

ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement, Region 1
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Subject: Calvert Cliffs Nuclear Power Plant
Units Nos. 1 & 2, Dockets Nos. 50-317 & 50-318
NRC IE Bulletin 79-01 and 01A
Additional Information

Reference: a) BG&E letter dated 6/13/79 from A. E. Lundvall
to Director, DROI, NRC IE Bulletin No. 79-01.
b) BG&E letter dated 6/28/79 from A. E. Lundvall
to Director, DROI, same subject.

Dear Mr. Grier:

Reference (a) submitted our initial response to IE Bulletins 79-01 and 01A. In that response we identified some ASCO solenoid valves which did not have the environmental qualifications required for their application (containment purge isolation valves). In a subsequent letter, Reference (b), we supplied further information on additional ASCO valves which lacked sufficient qualification.

In discussions with your Staff concerning the above-mentioned letters, we were requested to supply additional amplifying information concerning the design function of certain of the insufficiently qualified valves. The requested information is provided below by solenoid valve identification number.

SV-2085 Containment Instrument Air Header

This valve is not necessary for containment isolation; there are two isolation valves upstream. If the valve should fail either open or shut, there would be no adverse effect on the three valves it protects since they would all fail to their appropriate design positions on loss of air. One of the three valves is controlled by SV-517, which is discussed below. The remaining two valves are SV-518 and SV-519, both of which are qualified. If SV-2085 was to fail open resulting in a loss of instrument air, SV-518 and 519 would fail open, their fail-safe position except in the case of a downstream 2" charging line break, which is not postulated to occur during this LOCA scenario.

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SV-517 Auxiliary Spray Line

This is not a containment isolation valve. In addition, its failure to either the open or shut position would have no adverse effect on plant safety. If the valve failed open, it would open up a spray path to the pressurizer from the charging pumps, which could then be shut off if pressure dropped. No credit is assumed for the charging pumps on a loss-of-coolant-accident. If the valve failed shut, it would remove from use one of the two redundant flow paths for core flushing to prevent boron precipitation in the reactor vessel during long-term cooling following a cold leg break. The alternate flushing path would still be available for use.

SV-611, 621, 631, 641 SI Tanks 11A & B and 12A & B Fill and Drain Lines

These valves are not required for containment isolation; there are two locked-closed isolation valves downstream of them. These valves are normally closed and fail closed. If they fail open the chance of any adverse effect is extremely small for the following reasons:

1. On a large pipe break, the SI tanks release their contents within minutes after the accident. Therefore, the opening of the valves would have no consequence.
2. If, by some remote chance, one did fail open before the tank's contents was released, it would allow the tank's contents to fill up the 2" recirculation line to the Refueling Water Tank up to the containment isolation valves; this would deplete the 1000 ft.³ tank storage by approximately 40 ft.³. If, in addition, the drain valve (operated by SV-661, discussed below) to the reactor coolant drain tank from the recirculation line also failed, approximately 200 ft.³ of borated water would be lost from the SI tank.
3. After a SIAS, the instrument air compressors will trip on high air temperature, and subsequently SV-2085 will act to close CV-2085, shutting off instrument air to these solenoid valves, decreasing the likelihood that they would open.

SV-618, 628, 638 & 648 SI Tanks 11A, 11B, 12A & 12B Check Valve Leakage Drain to Refueling Water Tank (RWT)

These valves are not containment isolation valves; there are two locked closed isolation valves downstream of them. These valves are normally closed, close on a SIAS, and fail closed. If they fail open the chances of any adverse effect is extremely small for the following reasons:

1. Same as Reason (1) above.
2. If by some remote chance one did fail before the tank's contents were released, it would supply an alternate path (blocked downstream by isolation valves) for the tank's contents to flow once released; however, this alternate path is only a 1" line off the main 12" tank discharge line. Consequently, an insignificant amount of water would be lost.

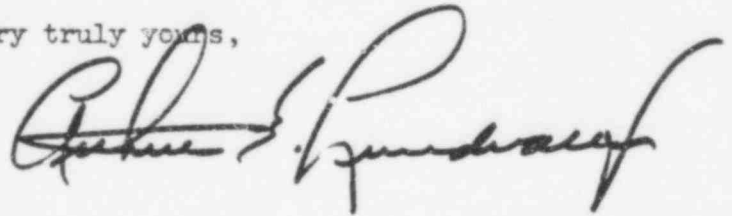
SV-661 SI Recirculation Return Line Drain to RC Drain Tank

This valve is not a containment isolation valve; there are two locked closed isolation valves downstream of the drain. If this valve failed open instead of the design position (fail closed), the chances of any adverse effect is extremely small for the following reasons:

1. Same as Reason (1) above.
2. If it did fail open before the tank's contents were released, it would only have an effect if one of the SV-611 621, 631, or 641 valves had also failed, in which case the previously blocked-up water in the recirculation line would be allowed to flow to the RC drain tank.
3. Same as Reason (3) above.

We have placed an order for replacement ASCO Solenoid valves which are properly qualified, and we expect to receive them in time for installation during the next refueling outage for each unit.

Very truly yours,



cc: J. A. Biddison, Esquire
G. F. Trowbridge, Esquire
Mr. E. L. Conner, Jr. - NRC
Mr. P. W. Kruse - CE
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