BALTIMORE GAS AND ELECTRIC COMPANY

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ARTHUR E. LUNDVALL, JR.
VICE PRESIDENT
SUPPLY

April 3, 1980

U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, PA 19406

Docket Nos. 50-317
50-318
License Nos. DPR-53
DPR-69

ATTENTION: Eldon J. Brunner, Chief
Reactor Operation and Nuclear
Support Branch

Gentlemen:

This refers to your Inspection Report 50-317/79-23; 50-318/79-22, which transmitted items of apparent noncompliance with NRC requirements. Enclosure (1) to this letter is a written statement in reply to the items noted in your letter of March 11, 1980.

Should you have further questions regarding this reply, we will be pleased to discuss them with you.

Very truly yours,

A. E. Lundvall, Jr.

A. E. Lundvall, Jr.
Vice President-Supply

AEL/RED/gla

Enclosure

8005220420

ENCLOSURE (1)

REPLY TO APPENDIX A OF NRC LETTER
OF MARCH 11, 1980

ITEM A

The D.C. busses at Calvert Cliffs provide power to hundreds of D.C. circuits both safety and non-safety related throughout the plant. The majority of these circuits power loads that are cyclic in nature. The ground detection devices, for each of the four D.C. busses, are active, not passive instruments in that they must be operated manually in order to detect a ground condition. It must also be noted that these instruments do not indicate an ohmic value of a ground, but simply extinguish a neon light on the positive or negative side of the bus if the resistance to ground decreases to 50 K OHM or below.

It has been the practice at Calvert Cliffs to randomly survey the D.C. busses for a grounded condition and generate a maintenance request to the Electric Shop to clear any grounds. Prior to the actual commencement of troubleshooting, a Quality Control Inspector is called by the electrician to monitor the work activity.

There are certain inherent difficulties associated with the location and isolation of a ground:

1. Multiple partial grounds, due to moisture or other varying conditions, when totaled, can decrease the resistance to ground 50 K OHM or less,

2. Solid grounds that appear on cycling equipment, are intermittent,

3. Deenergizing all the circuits that branch from a bus could cause a direct or indirect trip of the reactor,

The above listed difficulties are mentioned to place in perspective the difficulty in promptly locating grounds. It has always been the policy of the plant Electric Shop to maintain a maintenance request open until the ground was found and cleared, no matter what the time frame may be. This policy has prevented the shop from closing out a maintenance request solely for the reason that no ground was indicated upon commencement of the search.

In order to identify and clear a grounded condition on our D.C. busses in a more expeditious manner the following action has been initiated:

1. The Control Room Operator will survey, via the ground detectors, each of the four D.C. busses for a ground condition and make a notation in the Control Room log once per shift,

ENCLOSURE (1)

REPLY TO APPENDIX A OF NRC LETTER
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(CONTINUED)

2. When a ground is observed (negative or positive ground indicator light goes out and stays out, indicative of a resistance to ground of 50 K OHM to ground or less) a maintenance request will be issued,

3. The plant electrician will work closely with the Control Room Operators in order to isolate the various circuits from the affected D.C. bus. If, due to plant configuration or any other reason, it is not practical to deenergize various circuits at that time, the Shift Supervisor and the Electrical Foreman will reach a mutual agreement when it will be safe to do so.

Plans for the future include the possibility of using the reserve battery, in conjunction with the instrumentation, to act as a parallel power supply while attempting to identify grounds. When used in this manner, it would be possible to shift the ground to the reserve battery without losing power to that circuit, thus indicating which circuit or circuits are at fault. The above action would greatly reduce the time and enhance the reliability of the D.C. circuits during troubleshooting for grounds. This action will be implemented when FCR 78-1009 is completed, approximately September, 1980.

ITEM B

With regards to the reportability of the PORV opening, the personnel involved in the initial event classification did not regard the opening of the valve to be an "abnormal degradation" of the pressure boundary since the opening was obviously as a result of a spurious electronic signal, not a physical degradation of the boundary (such as weld failure, fatigue cracking, etc.). It was not until the morning of January 30, 1980, that the event was defined for us by the NRC Resident Inspector as falling under the classification stated by Technical Specification 6.9.1.8.c. Even though we do not believe that this Technical Specification was initially written to cover such an instance as the electrical activation of a PORV, we realize that the public and Commission have been sensitized to events involving PORV's and therefore desire the prompt submittal of any information regarding spurious actuations.

Immediately following the PORV opening and RCP spontaneous start, the Shift Supervisor, Nuclear Plant Engineer-Operations (NPE-O), and the Foreman-Electrical Maintenance met in the Control Room to discuss the events and determine a course of action. Since both events occurred within a relatively short time frame, it appeared that an electrical ground could have been the initiating malfunction for both. The PORV was returned to service for observation; no abnormal reaction was noted.

ENCLOSURE (1)

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(CONTINUED)

Since the PORV actuation was not duplicated, it was apparent that an active fault (signal present) situation did not exist. It was agreed that the Foreman-Electrical Maintenance would proceed with ground isolation troubleshooting, generally a complex and lengthly process. Since at this time an initial course of maintenance action was embarked upon, we do not feel that the statement in Item B of your Appendix A is entirely accurate. That is, action to investigate the PORV actuation was undertaken immediately. In retrospect, the action involving ground isolation did not provide the solution to the PORV actuation, nevertheless action was initiated well in advance of "prodding" by the NRC Resident Inspector.

As it happened, on the morning of January 30, 1980, the Assistant General Foreman-Maintenance (Instrumentation and Controls) questioned one of his technicians regarding an inspection conducted the previous day (as documented in the "details" section of your report). This questioning led to the positive conclusion that the PORV opening had been as a result of the physical disturbance of the control loop; no further troubleshooting was necessary.

Even though we feel that certain aspects of this item of apparent non-compliance are based on interpretations with which we do not fully agree, in order to prevent such misunderstandings in the future, and to assure that our controls over items of this nature receive proper management attention, a letter will be directed to the Shift Supervisors to emphasize the importance of the PORV's as a part of the primary boundary. This letter will direct that a prompt report be initiated anytime a PORV is inadvertently actuated. Furthermore, this letter will emphasize the importance of the timely initiation of documentation related to safety related maintenance. This letter will be issued before April 11, 1980.