

DES

JAN 15 1992

Docket Nos. 50-317  
50-318

Baltimore Gas and Electric Company,  
Calvert Cliffs Nuclear Power Plant  
ATTN: Mr. George C. Creel  
Vice President, Nuclear Energy  
MD Rts 2 and 4, Post Office Box 1535  
Lusby, Maryland 20657

Dear Mr. Creel:

Subject: Electrical Distribution System Functional Inspection (EDSFI) for Calvert  
Cliffs Units 1 and 2 Nuclear Power Plants

This letter confirms the dates of March 16-20, 1992 and March 30 - April 3, 1992, for a special electrical distribution system functional inspection at Calvert Cliffs Units 1 and 2. A pre-inspection visit by the team to the plant site is also scheduled on March 2-5, 1992, to review the availability of documents and to gather information for this inspection. An entrance meeting is scheduled for 1:00 p.m. on March 16, 1992 and the exit meeting is tentatively scheduled for 10:00 a.m. on April 3, 1992 at the plant site. Our plans were discussed with your staff during telephone calls between Mr. E. Wilson of your organization and Mr. R. Mathew of the NRC Region 1 office.

The primary objective of the inspection is to determine whether the electrical distribution systems, as designed, installed, and configured at Calvert Cliffs Units No. 1 and No. 2, are capable of performing their intended functions during all plant operating and accident conditions. Reliability of these systems directly affect the public safety. A secondary objective is to assess the engineering and technical support provided to ensure continued operability of the electrical distribution system.

To support the comprehensive scope of this inspection, we request that your staff be prepared to provide, on March 2, 1992, a presentation which addresses, as a minimum, the following areas:

1. Baltimore Gas and Electric (BGE) Company's organization and, specifically, the corporate and site engineering, clearly identifying responsibility, accountability, and flow of authority.
2. Station ac and dc distribution system arrangements.

9201280069 920115  
PDR ADDCK 03000317  
9 PDR

IE01  
41

JAN 15 1992

Baltimore Gas and  
Electric Company

2

3. Lineup of breakers during startup, normal and emergency operation of the plants.
4. Electrical interlocks and ties to various offsite and onsite power sources.
5. Transfer capability of the electrical systems following the loss of normal power sources.
6. Specific regulatory commitments regarding the electrical systems, if they are unique in nature.
7. BG&E's in-house programs for controlling electrical load growth, plant modifications (temporary and permanent), and setpoints of electrical system components.
8. BG&E's in-house monitoring and self assessment programs.
9. Electrical system design differences between Units 1 and 2, if any.

In addition, we request that BG&E provide us on site, on March 2, 1992, at least two copies of the documents identified on the enclosure. Your cooperation with us during this inspection will be appreciated. Should you have any questions regarding this inspection, you may contact Mr. Roy Mathew at 215-337-5194 or Mr. Clifford Anderson at 215-337-5376.

Sincerely,

Jacque P. Durr, Chief  
Engineering Branch  
Division of Reactor Safety

Enclosure: EDSFI Document List

cc w/encl:

G. Detter, Director, Nuclear Regulatory Matters (CCNPP)  
R. McLean, Administrator, Nuclear Evaluations  
J. Walter, Engineering Division, Public Service Commission of Maryland  
K. Burger, Esquire, Maryland People's Counsel  
R. Ochs, Maryland Safe Energy Coalition  
Public Document Room (PDR)  
Local Public Document Room (LPDR)  
Nuclear Safety Information Center (NSIC)  
NRC Resident Inspector  
State of Maryland (2)

JAN 15 1992

Baltimore Gas and  
Electric Company

3

bcc w/encl:

Region I Docket Room (with concurrences)

C. Cowgill, DRP

J. Yerokun, DRP

L. Nicholson, DRP

S. Greenlee, DRP

R. Lobel, EDO

R. Capra, NRR

D. McDonald, NRR

DRS SALP Coordinator

*Rice*  
RI:DRS  
Mathew

12/30/91

*USC*  
RI:DRS *for*  
Anderson

12/29/91

*[Signature]*  
RI:DRS  
Durr

12/15/91

OFFICIAL RECORD COPY  
C:\ALVERT.RM

## ENCLOSURE

### EDSFI DOCUMENT LIST

1. Engineering organization charts.
2. Station one-line diagrams for ac and dc systems (4 copies).
3. P&IDs of heating ventilation and air conditioning (HVAC) systems associated with the electrical distribution system (EDS).
4. P&IDs of the emergency diesel generators' (EDG) support systems, including fuel, water, lube oil, and air starting systems.
5. Elementary diagrams of major electrical distribution system components.
6. Listing of plant calculations for EDS and mechanical support systems.
7. Engineering calculations and studies pertaining to load control for both onsite and offsite AC sources; short circuit protection; voltage regulation during all modes of operation; degraded bus voltage conditions; protective relays settings; relay/breaker coordination; electrical penetration sizing and protection; equipment sizing, inverter sizing, battery sizing and load profile; cable ampacities; and EDG loading.
8. Engineering calculations and studies related to the HVAC of EDS equipment areas.
9. Engineering calculations and studies pertaining to the EDG fuel, cooling, and air starting capacity and requirements.
10. Engineering calculations and manufacturers' pump curves for major EDG loads.
11. Engineering data related to the EDG excitation and control power and to the engine brake horsepower requirements.
12. Listing of plant permanent and temporary modifications affecting the EDS and its mechanical support systems.
13. Significant modification packages pertaining to the EDS, and its mechanical support systems.
14. Listing of procedures and specifications relating to Engineering, Operations, and Maintenance.
15. Procedures and guidelines relating to the design, the design change control process, and the temporary modifications process.
16. Procedures and results for the last two surveillance tests of the EDG, batteries, and representative safety related circuit breakers (air and molded case type) and protective relays.
17. LERs and a listing of NCRs, related to the EDS, which were issued during the last three years.
18. Self assessment reports and QA audits in the engineering and technical support area for the last three years.

#### Notes:

- a. Where applicable, please provide documents for both Units 1 and 2.
- b. For ease of reference, the documents should be appropriately labeled.