



CHARLES CENTER • P.O. BOX 1475 • BALTIMORE, MARYLAND 21203

ELECTRIC ENGINEERING
DEPARTMENT

July 7, 1982

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

Attn: Mr. Robert A. Clark, Chief
Operating Reactors Branch #3
Division of Licensing

- Reference: (a) Interactive Cable Analysis for Calvert Cliffs Nuclear Power
Plant Unit No. 1, October 1, 1981 (Green Book)
- (b) Interactive Cable Analysis for Calvert Cliffs Nuclear Power
Plant Unit no. 2, February 1, 1982 (Blue Book)

Gentlemen:

This letter transmits revised pages LM/45, 317/2 and 317/4 for the Unit 1 Interactive Cable Analysis (ICA), Reference (a), and page 2-311/3 for the Unit 2 ICA, Reference (b), as well as revised cover sheets for both ICA's. Please insert the new pages in your copies of the ICA's.

The changes were discussed in a meeting between members of the NRC staff and BG&E held in Bethesda on June 18, 1982, and conducted by Mr. D. H. Jaffe. The changes for each ICA concern LPSI Pump power cables and are indicated by a solid line in the margin of each page.

If there are any further questions, please do not hesitate to ask.

Very truly yours,

R. F. Ash
Supervising Engineer
Electric Engineering Department

MDP:gvv

cc: J. A. Biddison, Jr., Esquire
G. F. Trowbridge, Esquire
Mr. D. H. Jaffe - NRC

A001

bc : Messrs. R. P. Hunt
P. E. Katz
C. H. Cruse
G. W. Powell
A. R. Thornton
R. C. L. Olson
M. D. Patterson
R. F. Ash/File

INTERACTIVE CABLE ANALYSIS
FOR
CALVERT CLIFFS NUCLEAR POWER PLANT
UNIT NO. 2

Page 2-311/3 revised 6/22/82

PREPARED BY
ELECTRIC ENGINEERING DEPARTMENT

FEBRUARY 1, 1982

INTERACTIVE CABLE ANALYSIS
FOR
CALVERT CLIFFS NUCLEAR POWER PLANT
UNIT NO. 1

Pages LM/45, 317/2, and 317/4 revised 6/22/82

PREPARED BY
ELECTRIC ENGINEERING DEPARTMENT

OCTOBER 1, 1981

to Unit 2 shutdown cooling heat exchangers from Unit 1. All Unit 1 salt-water pumps, component cooling pumps and related valves and cables are independent of this area.

2-MOV-635 and 2-MOV-645 are redundant to 2-MOV-615 and 2-MC -625 and are independent of this area. All four valves can be operated manually.

For cold shutdown operations, sufficient time exists to operate 2-MOV-658 after removing power at its MCC.

2MB406 (#22 Component Cooling Pump) is redundant to 2MB106 and 2MB116 and is independent of this area. Additionally, component cooling water can be supplied to Unit 2 shutdown cooling heat exchangers from Unit 1. All Unit 1 saltwater pumps, component cooling pumps and related valves and cables are independent of this area.

Power cables for 2MA404 will be relocated to provide separation to cables related to 2MA104.

No modifications are required for items 12, 13 and 22 24 for diesel cooling. Cooling can be provided to any diesel generator from the Unit 1 service water system independent of a fire in this area.

There are no power or control cables or equipment associated with D.G.21 or 4 kV bus 24 in this room. D.G.21 can be aligned with bus 24 and D.G.12 with bus 11.

The power cables from D.G.12 will be isolated with a manual disconnect switch, locked closed at D.G.12. Redundant battery chargers 11 and 14 fed from 4 kV bus 11 will be available. No modification is required for MCC11G since D.G.11 will not be used. No modification is required for the auxiliary transfer switch since 4 kV bus 21 will not be used.

No modifications are required for D.G.11 control, item 34. The proposed diesel generator line-up requires the use of D.G.12 and D.G.21 only. Placing the existing D.G.11 local remote switch in local isolates D.G.11 engine control. Current transformer (CT) leads from 4 kV bus 11 for D.G.11 differential protection do not pass through this room, Therefore, D.G.11 control could be isolated from this room.

No modifications are required for D.G.12 control, item 34. Placing the existing D.G.12 local remote switch in local isolates D.G.12 engine control. C.T. leads from 4 kV bus 11 for D.G.12 differential protection do not pass through this room, therefore D.G.12 control would be isolated from this room.

Revised 6/22/82

COLD SHUTDOWN-REACTOR HEAT REMOVAL FUNCTION (Att. 7)

DEVICE

LOCATION (By Room Number)

DEVICE	300	301	302	303	304	305	307	308	315	317	318	319	320	324	327	328	CC1A	CC1H	CC1C	b	AB5
1-CV-3826																				X	
1MB106									X	X								X		X	
1MB406									X								X			X	
1MB116					X				X	X							X	X	X	X	
1-CV-3840																				X	
2-CV-3840																					
1-CV-3842																				X	
2-CV-3842																					
1-CV-3828										X								X	X	X	
1-CV-3830																			X	X	
1MA104									X	X							X	X	X	X	
1MA404									X	X							X			X	
1-MOV-651										X							X	X	X	X	
1-MOV-652																	X			X	

a-Includes common fire area 319, 323, 325
b-Includes common fire area CC1C, 306

19. Control cable for 1-CV-3828 - CS/RHR
20. Power and control cables for 1-MOV-615 - CS/RHR
21. Power and control cables for 1-MOV-625 - CS/RHR
22. Power and control cables for 1-MOV-658 - CS/RHR
23. Power, control, annunciator and instrumentation cables for
1MB106 (#11 Component Cooling Pump) - CS/RHR
24. Power, control, annunciator and instrumentation cables for
1MB116 (#13 Component Cooling Pump) - CS/RHR
25. Power, control, instrumentation and annunciator cables for
1MA104 (#11 LPSI Pump) - CS/RHR
26. Power cables and disconnect switches for D.G.11 and D.G.12 - VS
27. Feeder breakers from D.G.11 and D.G.12 and related cables - VS
28. Feeder breakers for 480V bus 11A and 11B and related
cables - VS
29. 480V breaker and feeder cable for MCC 114R - VS
30. Feeder breakers and power cables for battery chargers 11
and 14 - VS
31. Control cable for the ZA auxiliary transfer switch for
D.G.12 - VS
32. Control cable for MCC11G for D.G.11 - VS
33. 4 kV bus 11 and 480V bus 11A and 11B - VS
34. D.C. power cables to 4 kV bus 11 and 480V bus 11A and 11B - VS
35. Power cables for 1MA404 (#12 LPSI Pump) - CS/RHR.

ANALYSIS AND MODIFICATIONS

AFW pump #12 is redundant to AFW pump #11 and is independent of this area.

1-MOV-4071 is redundant to 1-MOV-4070 and is independent of this area.

1-MOV-635 and 1-MOV-645 are redundant to 1-MOV-615 and 1-MOV-625 and are independent of this area. All four valves can be operated manually.

For cold shutdown operations, sufficient time exists to operate 1-MOV-658 after removing power at its MCC.

LMB406 (#12 Component Cooling Pump) is redundant to LMB106 and LMB116 and is independent of this area. Additionally, component cooling water can be supplied to Unit 1 shutdown cooling heat exchangers from Unit 2. All Unit 2 saltwater pumps, component cooling pumps and related valves and cables are independent of this area.

Power cables for LMA404 will be relocated to provide separation to cables related to LMA104.

There are no power or control cables or equipment associated with D.G.21 or 4 kV bus 14 in this room. Redundant switchgear, cables, and battery chargers will remain available for safe shutdown of Unit 1.

The power cables from D.G.12 will be isolated with a manual disconnect switch, locked closed, at D.G.12. D.G.12 can be used for bus 21. Redundant battery chargers 22 and 23 fed from 4 kV bus 21 will be available. No modification is required for MCC11G since D.G.11 will not be used. No modification is required for the transfer switch since 4 kV bus 11 will not be used.

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