



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

ELECTRIC ENGINEERING
DEPARTMENT

March 24, 1981

Mr. E. L. Conner, Jr.
Office of Nuclear Reactor Regulation
U. S. Nuclear Regulatory Commission
Operating Reactors Branch #3
Division of Licensing

Subject: Calvert Cliffs Nuclear Power Plant
Units Nos. 1 & 2, Dockets Nos. 50-317 & 50-318
Auxiliary Feedwater System

Dear Mr. Conner:

Enclosed are elementary wiring diagrams for the Auxiliary Feedwater Initiation Circuit and information on the Feedwater Annunciation Circuit that you requested.

Drawings and DCN's (Drawing Change Notices) for the Auxiliary Feedwater Initiation Circuit are as follows:

<u>Drawings</u>	<u>w/ DCNs</u>
1-LD-58	1-LD-58-2002
1-E-79-2024 Sht 27B	1-E-79-2024 sheets 1-6 1-E-79-2022

Information on the Auxiliary Feedwater System Annunciation Circuit are given in the enclosed table titled Calvert Cliffs Annunciator Modifications; PCR 80-1015.

Very truly yours,

Michael H. Evans
Engineer

MHE/smn
Enclosure

cc: Mr. Ken Fertner
Franklin Research Center

*Appl
5/11
Draws to:
Be
Aperture
Dist*

103260547

P

AS IS - presently

* RESERVED SPARES

CENTRAL CLIFFS ASSOCIATOR MODEL 11

Project -

Est. No.

Eng'r

Date 10/8/50

Electrical Panel -

FOR NO-1015

ESTIMATED COST - 1,100

Elec. No.

NO.	FIRST LINE	SECOND LINE	
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PANEL 2002

V01			7 E N E R A T O R
V02			
V03			
V04			
V05	GEN CORE	MOTOR	
V06	H2 PRESS	PURITY - TRIP	
V07			
V08			

B21

PANEL 2004

W01	AFAS-A TD	INITIATED	A U X I L I A R Y F E E D B A C K		
W02	AFAS-A	ACTUATED			
W03	MOV 4070	BLOCKED			
W04					
W05	AFAS-B TD	INITIATED			
W06	AFAS-B	ACTUATED			
W07	MOV 4071	BLOCKED			
W08					
W09					
W10					
W11					
W12					
W13					
W14					
W15					
W16					
W17					
W18					
W19					
W20					
W21	LUBE OIL	CORCTR LVL	A C C H O N I L P L	RI	
W22	SEAL WATER	PRESS LO		S T M	RI
W23	LUBE OIL	TAMP LEVEL			RI
W24	EMERG OIL	FP OVERLOAD			
W25				G C 69	
W26	BRG DRAIN	OIL TEMP HI			
W27	DEBY OIL PR	LVL INTRD X			

C65

C69

U 2801-9971 X (82.997)



BECHTEL
GAITHERSBURG, MD.

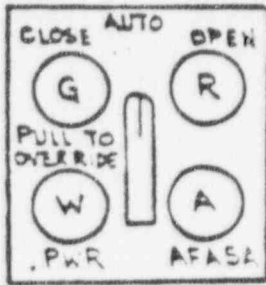
DRAWING CHANGE NOTICE (Q)

JOB NO 11865	DRAWING NO 1E-79, SH.27B	REV. NO X
DCN NUMBER 1E-79-2024		DATE 9-25-80
PROJECT APPROVAL <i>JMB</i>		

OTHER DOCUMENTS AFFECTED BY THIS CHANGE REFER TO FCR 79-1060 PACKAGE LIST OF ENCLOSURES
WORK THIS DCN WITH DCN 1E-79-2009 (FCR 79-1035)

REASON FOR CHANGE FCR 79-1060, UNIT 1
REF. BG&E # 61-079-B
THIS DCN VOIDS DCN 1E-79-2011

DISPOSITION OF AFFECTED MATERIAL: REWORK SCRAP USE AS IS AS NOTED N/A



ELECTROSWITCH
CAT. NO. 20LD

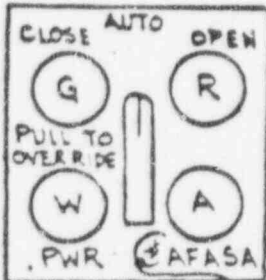
SPRING RETURN FROM
CLOSE & OPEN TO AUTO
PULL TO OVERRIDE IN
CLOSE
PISTOL GRIP HANDLE

CONTACT HANDLE END	PULL TO OVERRIDE	CLOSE	AUTO	OPEN
10 — — 02	X			
30 — — 04		X		
50 — — 06			X	
70 — — 08				X
90 — — 010	X			
110 — — 012			X	

IHS4070 & IHS4071 USED AT 1C03

BEFORE

SEE DCN 1E-79-2009



ELECTROSWITCH — ADD
CAT. NO. 20LD

SPRING RETURN FROM
CLOSE & OPEN TO AUTO
PULL TO OVERRIDE IN
CLOSE
PISTOL GRIP HANDLE

CONTACT HANDLE END	PULL TO OVERRIDE	CLOSE	AUTO	OPEN
10 — — 02	X			
30 — — 04		X		
50 — — 06			X	
70 — — 08				X
90 — — 010	X			
110 — — 012			X	

IHS4070 & IHS4071 USED AT 1C03

ADD *AFASB FOR SCHEME 1B0414

AFTER

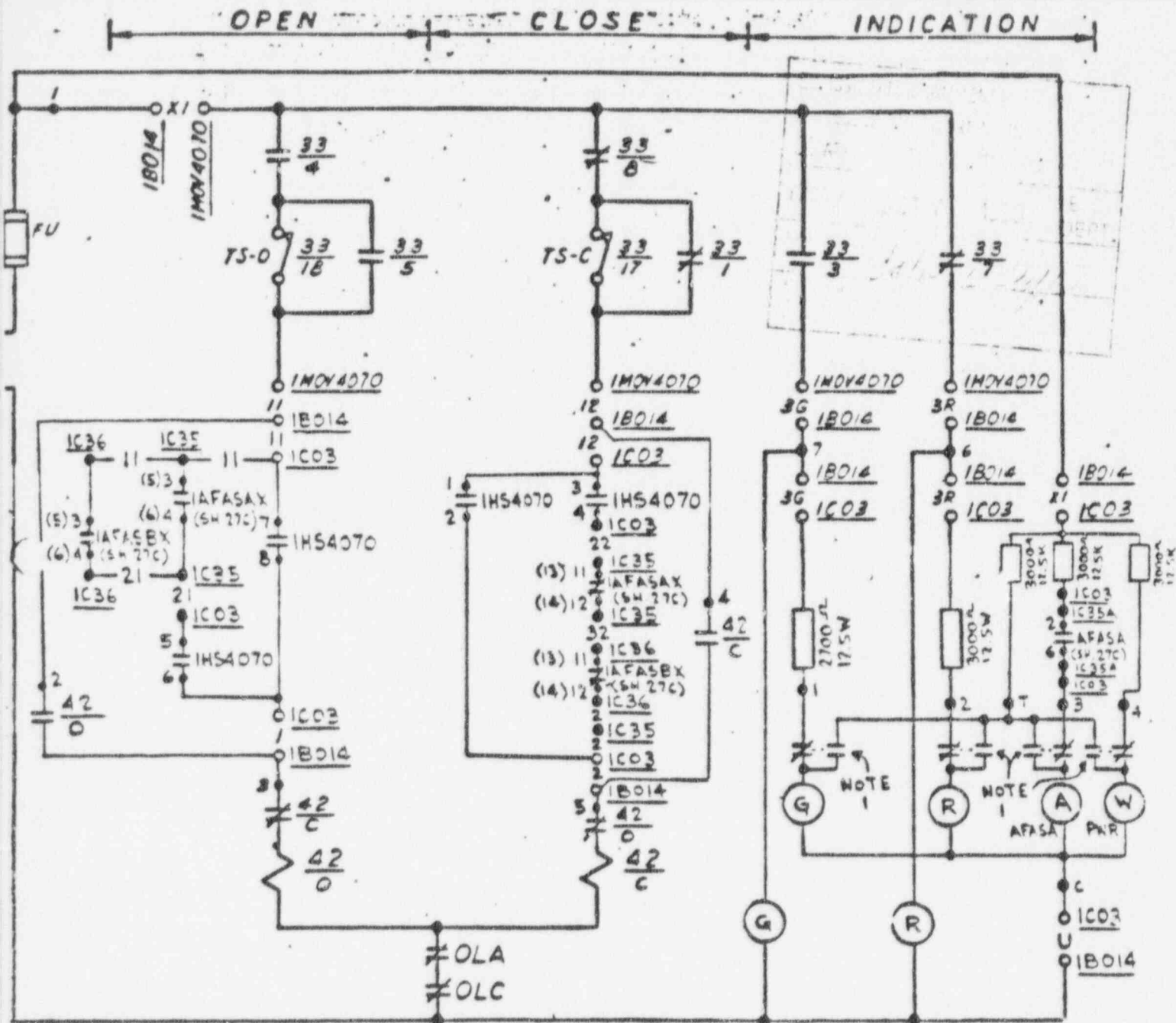
REVIEWED WITHOUT COMMENT	ARCHITECTURAL N/A	CIVIL N/A	CONTROL SYSTEMS N/A	ELECTRICAL N/A	PLANT DESIGN N/A	MECHANICAL N/A
PREPARED BY	RESPONSIBLE ENGINEER <i>R. Fisher</i> 9-15-80	CHECKER <i>J. H. H.</i>	APPROVED BY	GROUP SUPERVISOR <i>James T. Patten</i>	PAGE 1 OF 6	



BECHTEL
GAITHERSBURG, MD.

DRAWING CHANGE NOTICE

JOB NO	DRAWING NO	REV NO
11865	IE-79, SH. 27B	X
DCN NUMBER 1E-79-2024		
CONTINUATION SHEET		
PAGE 2 OF 6		



SCHEME 1B1414
VALVE SHOWN IN FULL OPEN POSITION

NOTES:

1. PUSHING IN ON LIGHT CHANGES CONTACT STATE
2. TERMINAL NOS IN () PERTAIN TO SCH. 1B0414

BEFORE

SEE PAGE 3 FOR AFTER
(SEE DCN 1E-79-2009)

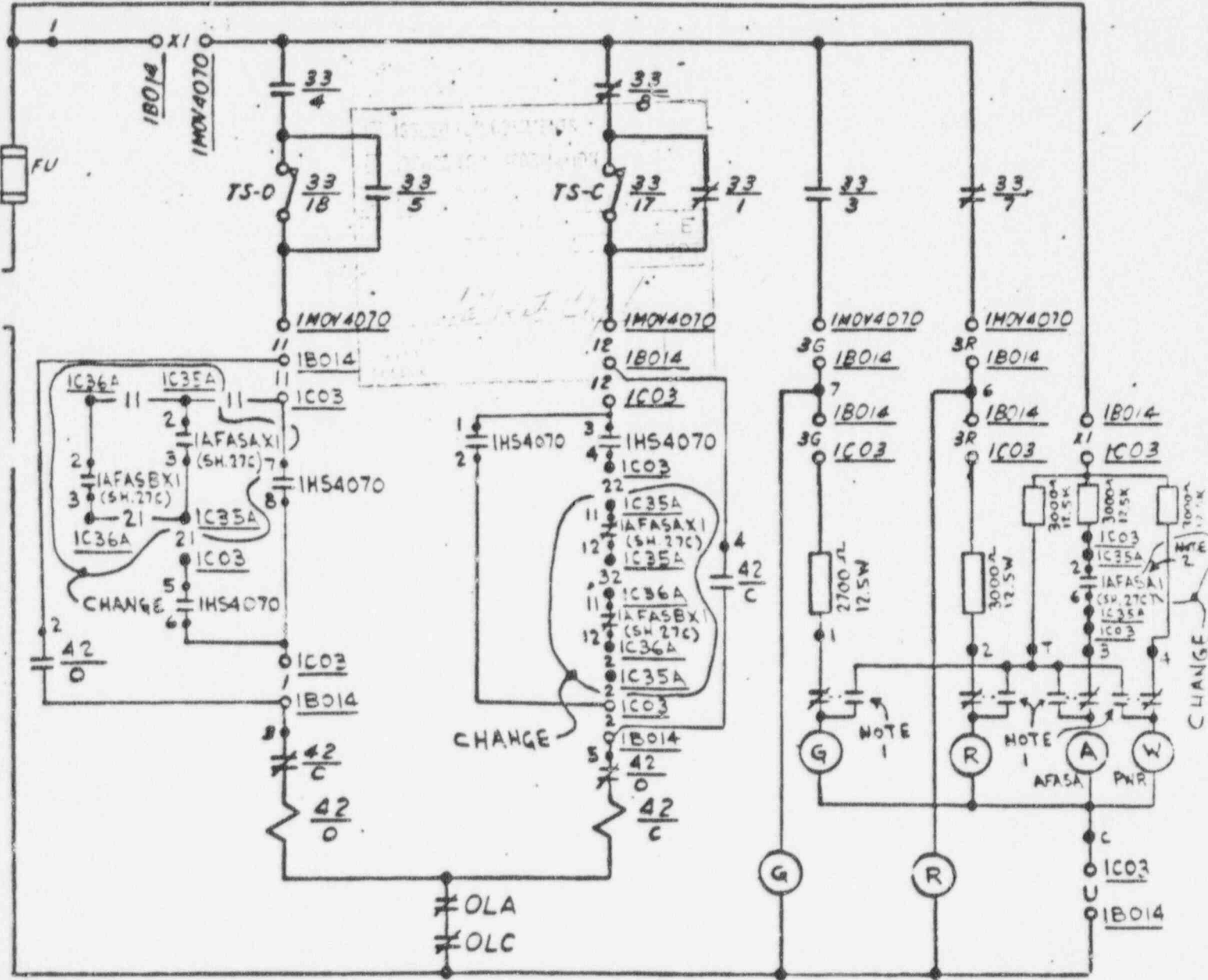


BECHTEL
GAITHERSBURG, MD.

DRAWING CHANGE NOTICE

JOB NO	DRAWING NO	REV NO
11865	1E-79,SH,27B	X
DCN NUMBER		
1E-79-2024		
CONTINUATION SHEET		
PAGE 3 OF 6		

OPEN CLOSE INDICATION



SCHEME 1B1414
VALVE SHOWN IN FULL OPEN POSITION

AFTER
SEE PAGE 2 FOR BEFORE

NOTES:

1. PUSHING IN ON LIGHT CHANGES CONTACT STATE
2. CONTACT IAFASAX1 WILL BE IAFASBX1 IN SCHEME 1B0414

CHANGE

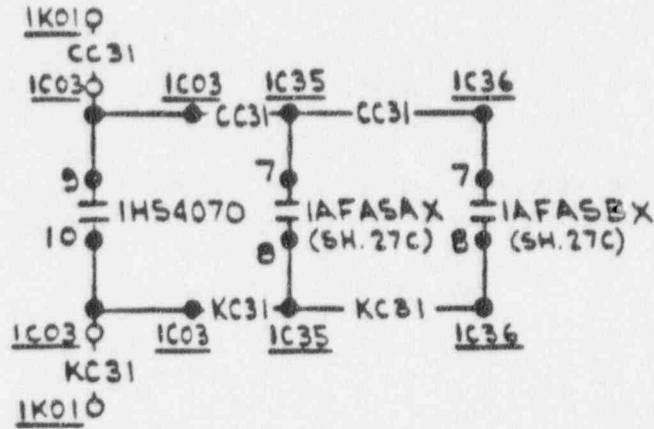
0-200-1 02-13-76



BECHTEL
GAITHERSBURG, MD.

DRAWING CHANGE NOTICE

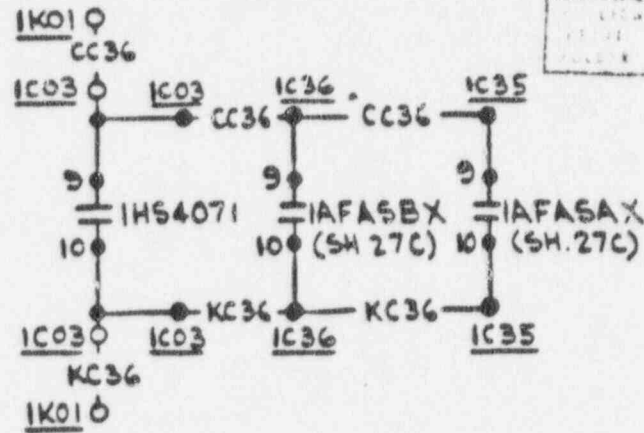
JOB NO	DRAWING NO.	REV NO
11865	1E-79 SH.27B	
DCN NUMBER 1E-79-2024		
CONTINUATION SHEET		
PAGE 4 OF 6		



I-K51C

I-MOV-4070 AFAS
BLOCKED
AUTO START

<input type="checkbox"/>	ISSUED FOR COMMENTS
<input type="checkbox"/>	ISSUED FOR INFORMATION
<input checked="" type="checkbox"/>	APPROVED FOR PRODUCTION
DATE	E. E. DEPT.
OCT 7 1983	
<i>Robert W. [Signature]</i>	



I-K21C

I-MOV-4071 AFAS
BLOCKED
AUTO START

BEFORE

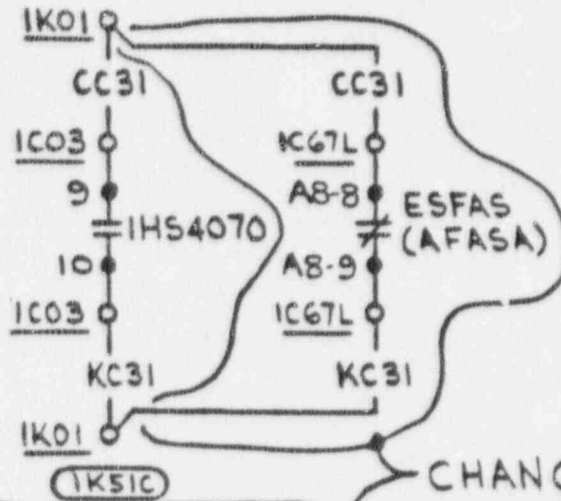
SEE PAGE 5 FOR AFTER
(SEE DCN 1E-79-2009)



BECHTEL
GAITHERSBURG, MD.

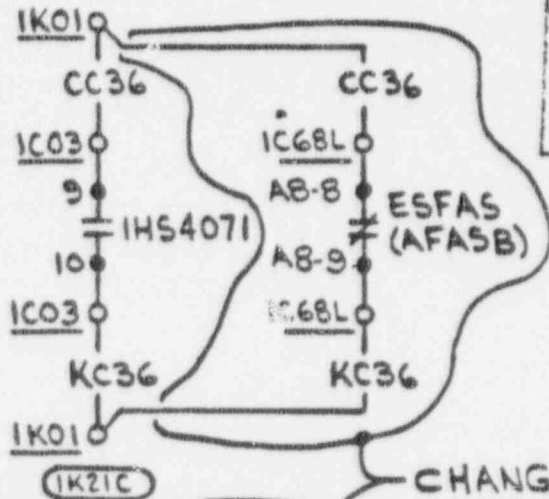
DRAWING CHANGE NOTICE

JOB NO	DRAWING NO	REV NO
11865	IE-79, SH.27B	
DCN NUMBER IE-79-2024		
CONTINUATION SHEET		
PAGE 5 OF 6		



1K51C
AFAS ACTUATION
SYS. A TRIPPED/
I-MOV-4070 BLOCKED

<input type="checkbox"/>	ISSUED FOR COMMENTS
<input type="checkbox"/>	ISSUED FOR INFORMATION
<input checked="" type="checkbox"/>	APPROVED FOR CONSTRUCTION
APPROVED	OCT 7 1980
	E. C. DEPT.



1K21C
AFAS ACTUATION
SYS. B TRIPPED/
I-MOV-4071 BLOCKED

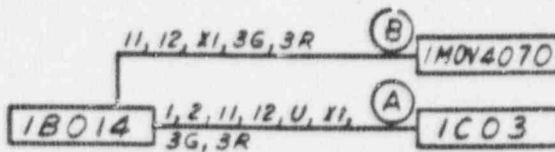
AFTER
SEE PAGE 4 FOR BEFORE



BECHTEL
Baltimore, MD.

DRAWING CHANGE NOTICE

JOB NO	DRAWING NO	REV NO
11865	1E-79 SH.27B	X
DCN NUMBER 1E-79-2024		
CONTINUATION SHEET		
PAGE 6 OF 6		

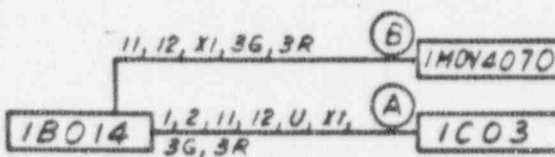


BLOCK DIAGRAM
SCHEME 1B1414
FACILITY A

A C B.	MCC		CONTROL SWITCH	FACILITY
	NO.	LOC.		
52-11414	114R	1B014	1HS4070	A
52-10414	104R	1B004	1HS4071	B

BEFORE

<input type="checkbox"/>	ISSUED FOR COMMENTS
<input type="checkbox"/>	ISSUED FOR INFORMATION
<input checked="" type="checkbox"/>	ISSUED FOR ACTION
DATE	OCT 7 1980
BY	E. E. DEPT.
<i>Robert Cliff</i>	



BLOCK DIAGRAM
SCHEME 1B1414
FACILITY EA

A C B.	MCC		CONTROL SWITCH	FACILITY
	NO.	LOC.		
52-11414	114R	1B014	1HS4070	ZA
52-10414	104R	1B004	1HS4071	ZB

CHANGE

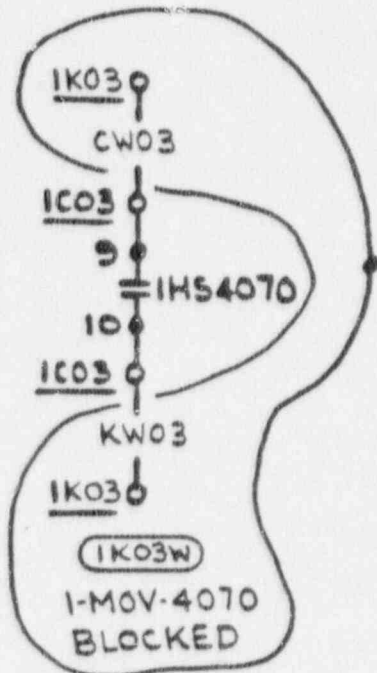
AFTER



BECHTEL
GAITHERSBURG, MD.

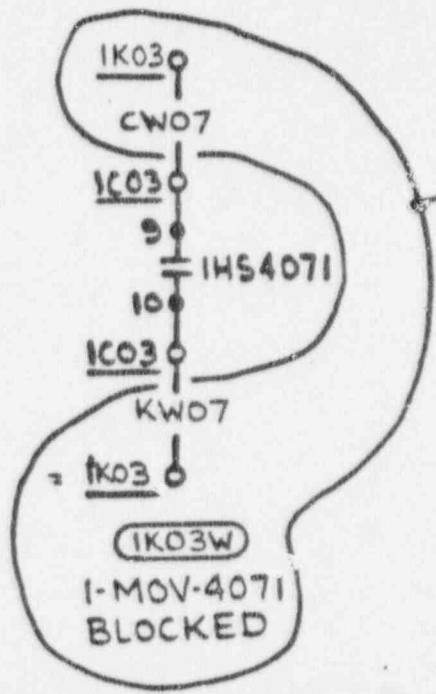
DRAWING CHANGE NOTICE

JOB NO	DRAWING NO	REV NO
11865	1E-79, SH.27B	X
DCN NUMBER		
1E-79-22		
CONTINUATION SHEET		
PAGE	2	OF 2



CHANGE

<input type="checkbox"/>	DESIGNED	
<input type="checkbox"/>	CHECKED	
<input checked="" type="checkbox"/>	APPROVED	
PROD	L. E.	
	DEPT.	
CALVERT CLIFFS UNIT #1		



CHANGE

AFTER
SEE PAGE 1 FOR BEFORE

61-058-1

DRAWING CHANGE NOTICE



BECHTEL
GAITHERSBURG, MD.

JOB NO. 11865	DRAWING NO. 1-LD-58	REV. NO. X
DCN NUMBER 1-LD-58-2002	DATE 8-5-80	
PROJECT APPROVAL <i>[Signature]</i>		

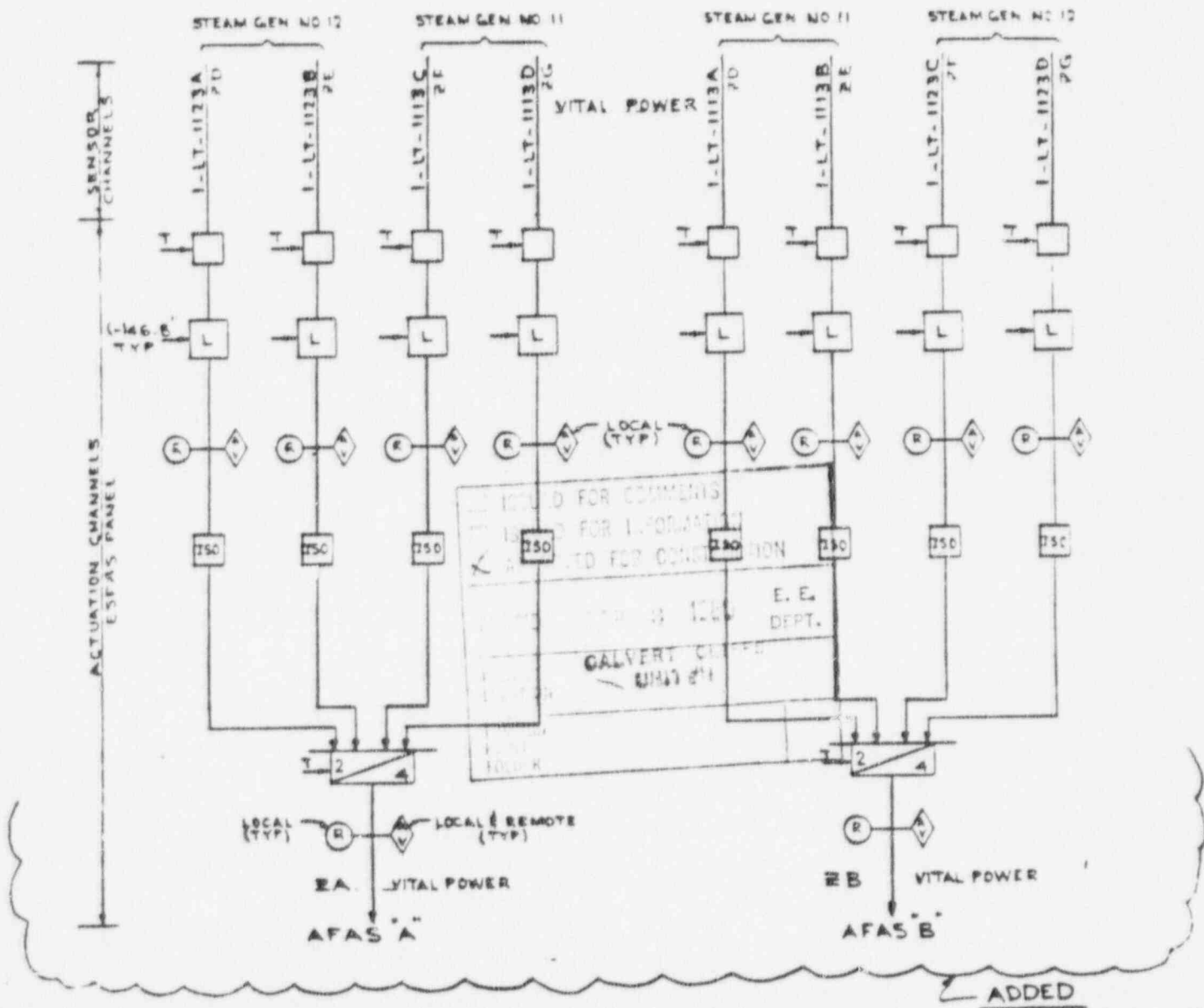
OTHER DOCUMENTS AFFECTED BY THIS CHANGE REFER TO FCR 79-1060

REASON FOR CHANGE: FCR 79-1060 UNIT NO. 1 BG&E DWG. NO. 61-058-E

DISPOSITION OF AFFECTED MATERIAL

REWORK SCRAP USE AS IS AS NOTED

STEAM GENERATOR LEVEL - AFAS LOGIC



GPD-27170-D 5/79 (Form G-238)

REVIEWED WITHOUT COMMENT	ARCHITECTURAL N/A	CIVIL N/A	CONTROL SYSTEMS N/A	ELECTRICAL N/A	PLANT DESIGN N/A	MECHANICAL N/A
PREPARED BY H. C. Stein 7-28-80	RESPONSIBLE ENGINEER	CHECKER <i>[Signature]</i>	APPROVED BY	GROUP SUPERVISOR <i>[Signature]</i>	PAGE 1 OF 1	