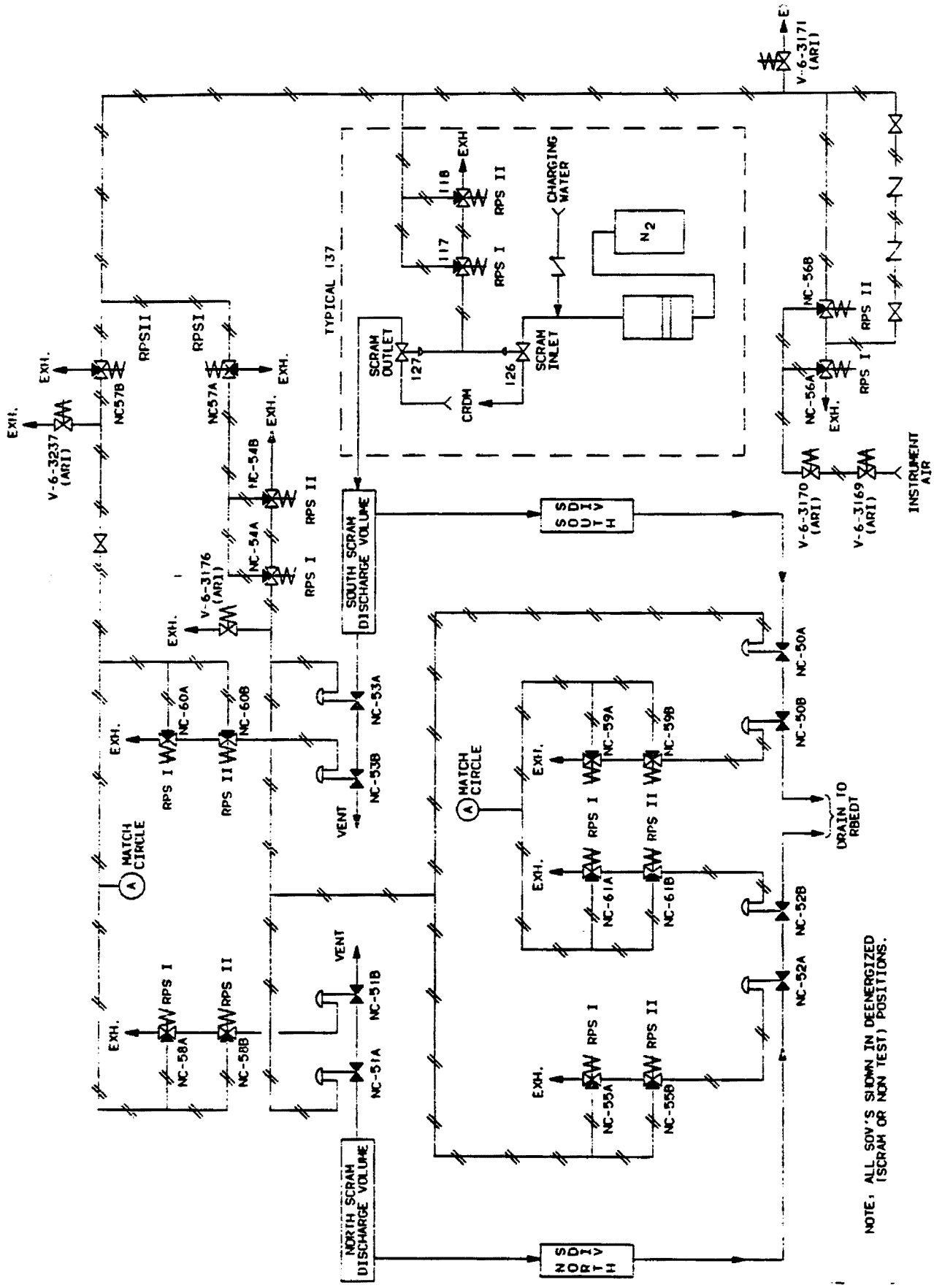


**GPU Nuclear**  
 Dyster Creek  
 Plant Protection Functions  
 Block Diagram  
 Update-10  
 04/97  
 CAUD #  
 SSE, SMA, CO, 00990, 001-0201  
 Fig. 7.2-1



Update 9  
06/95

**FIGURE 7.2-2  
REACTOR PROTECTION SYSTEM  
SOLENOID VALVE CONTROL**

ANNUNCIATOR WINDOW LOCATION AND DESCRIPTION

G

	FUEL POOL	LIQUID POISON SYSTEM	R E A C T O R			
			RPS	NEUTRON MONITORS		
1		FLOW ON	SCRAM CONTACTOR OPEN	CHANNEL I	IRM HI-HI/INOP	APRM HI-HI/INOP
				AND	AND I	AND I
2	GATES LEAK HI	SQUIB VALVE OPEN	RPS MG SET 1 TRIP	CHANNEL II	IRM HI-HI/INOP	APRM HI-HI/INOP
					II	II
3	REFUEL SEAL LEAK HI		RPS MG SET 2 TRIP	SRM HI-HI	IRM HI	APRM HI
4	POOL LEVEL/TEMP HI	TANK LEVEL HI/LO	RPS 600 #/SD BYPASS	SRM HI-/INOP	IRM DNSCL	APRM DNSCL
5	POOL LEVEL LO			SRM DNSCL		APRM FLO BIAS OFF NORMAL
6	SKM SRG TNK LVL LOW		RPV-FLANGE ΔT - HI			LPRM HI
7	SKM SRG TNK LVL LO-LO		RPS ISOLATION CI R <sub>x</sub> I I	SRM PERIOD SHORT		LPRM DNSCL
8		TANK TEMP HI/LO	RPS ISOLATION CI R <sub>x</sub> I II		TIP PURGE PRESS HI/LO	TIP SQUIB CONTINUITY
	a	b	c	d	e	f

NOTES:

- INPUT CONTACTS OPEN TO ALARM.
- REFER TO ELECTRICAL CONNECTION DIAGRAM DWG. NO. 3E-661-18-024 SH. 1 FOR OTHER COMMON TERM. NO'S.

Rev. 12 04/01

OYSTER CREEK NUCLEAR GENERATING STATION

**Reactor Trip System Alarms**

Figure 7.2-3A

ANNUNCIATOR WINDOW LOCATION AND DESCRIPTION

C O N T R O L      R O D S /			R E A C T O R			
D R I V E S			DW	PRESS		
	ROD CONTROL	SDV	HYDR	LEVEL	PRESS	
1	CONTROL AIR PRESS LO	SDV LEVEL HI-HI	PUMP A OL	DW PRESS HI-HI	CCW RX LVL LO-LO-LO RX PRESS HI-HI	
		AND I		CI AND I	E AND I	
2	<b>ARI INITIATED</b>	SDV LEVEL HI-HI	PUMP B OL	DW PRESS HI-HI	CCW OR RX LVL LO-LO-LO RX PRESS HI-HI	
		II		CI II	E II	
3	<b>ARI OFF NORMAL</b>	NORTH SDV LEVEL HI ROD BLOCK	SUCT PRESS LO PUMP TRIP		RXI RX LVL LO-LO RX PRESS HI-HI	
				CI AND I		
4		SOUTH SDV LEVEL HI ROD BLOCK	FILTER Δ P HI		RX LVL LO-LO	
				CI II		
5	ROD OVERTRAVEL	SDV NOT DRAINED	CRD TEMP HI	<b>ROPS ACTUATE A</b>	RX LVL LO RX LVL HI	
				AND	E I	
					△ II AND I	
6	ROD DRIFT	SDV LEVEL HI-HI SCRAM BYPASS		<b>ROPS ACTUATE B</b>	RX LVL LO RX LVL HI	
					E II	
					△ II II	
7	ROD BLOCK		CHARG WTR PRESS LO	<b>ROPS BYPASSED</b>	RX LVL HI/LO	
8			ACCUMULATOR PRESS LO/ LEVEL HI		RX LVL/PRESS INSTR CHANL TEST	
					RX LVL/PRESS INSTR PWR LOST	
	a	b	c	d	e	f

- NOTES:
- INPUT CONTACTS OPEN TO ALARM.
  - REFER TO ELECTRICAL CONNECTION DIAGRAM DWG. NO. 3E-611-18-024 SH. 1 FOR OTHER COMMON TERM. NO'S.
  - CONNECT DROP #5-C ALARM CKT. TO ALARM ON SIGNAL CONTACT CLOSURE.

FIGURE 7.2-3B

REV. 16, OCTOBER 2009

**OYSTER CREEK NUCLEAR GENERATING STATION**

**Reactor Trip System Alarms**

Figure 7.2-3B

OCNGS  
FSAR UPDATE

ANNUNCIATOR WINDOW LOCATION AND DESCRIPTION

BOP		J		F E E D P U M P S		
M A I N S T E A M			1A	1B	1C	
1	MSIV CLOSED  I	COND VAC LO/ TURB TRIP  I	DUAL COMPUTER FAILURE	FEED PUMP TRIP  A	FEED PUMP TRIP  B	FEED PUMP TRIP  C
2	MSIV CLOSED  II	COND VAC LO/ TURB TRIP  II	DUAL LINK FAILURE	FEED PUMP OL  A	FEED PUMP OL  B	FEED PUMP OL  C
3	RXI FLOW HI/MN STM LINE AREA TEMP HI-HI  I			LUBE OIL PRESS LO  A	LUBE OIL PRESS LO  B	LUBE OIL PRESS LO  C
4	RXI FLOW HI/MN STM LINE AREA TEMP HI-HI  II			MIN FLOW OPEN  A	MIN FLOW OPEN  B	MIN FLOW OPEN  C
5	RXI MN STM PRESS LO  I	RAD HI		MFRV LOCKUP  A	MFRV LOCKUP  B	MFRV LOCKUP  C
6	RXI MN STM PRESS LO  II	LO PRESS BYPASS		BLOCK VLV TROUBLE  A		BLOCK VLV TROUBLE  C
7	FLOW MISMATCH					
8	TRUNNION RM E TEMP HI	MN STM VLVS OFF NORMAL	FCS/RFC TROUBLE		HWC H2 INJ. TROUBLE	COND/FD PMP BRG TEMP HI
	a	b	c	d	e	f

NOTES:

- 1 INPUT CONTACTS OPEN TO ALARM.
- 2 REFER TO ELECTRICAL CONNECTION DIAGRAM DWG. NO. 3E-611-18-024 SH. 1 & 2 FOR OTHER COMMON TERM. NO'S.

**OCNGS Nuclear**

Oyster Creek

Reactor Trip System Alarms

Update 10

04/97

Fig. 7.2-3C

**OCNGS UFSAR**

Figures 7.2-4A through 7.2-4E

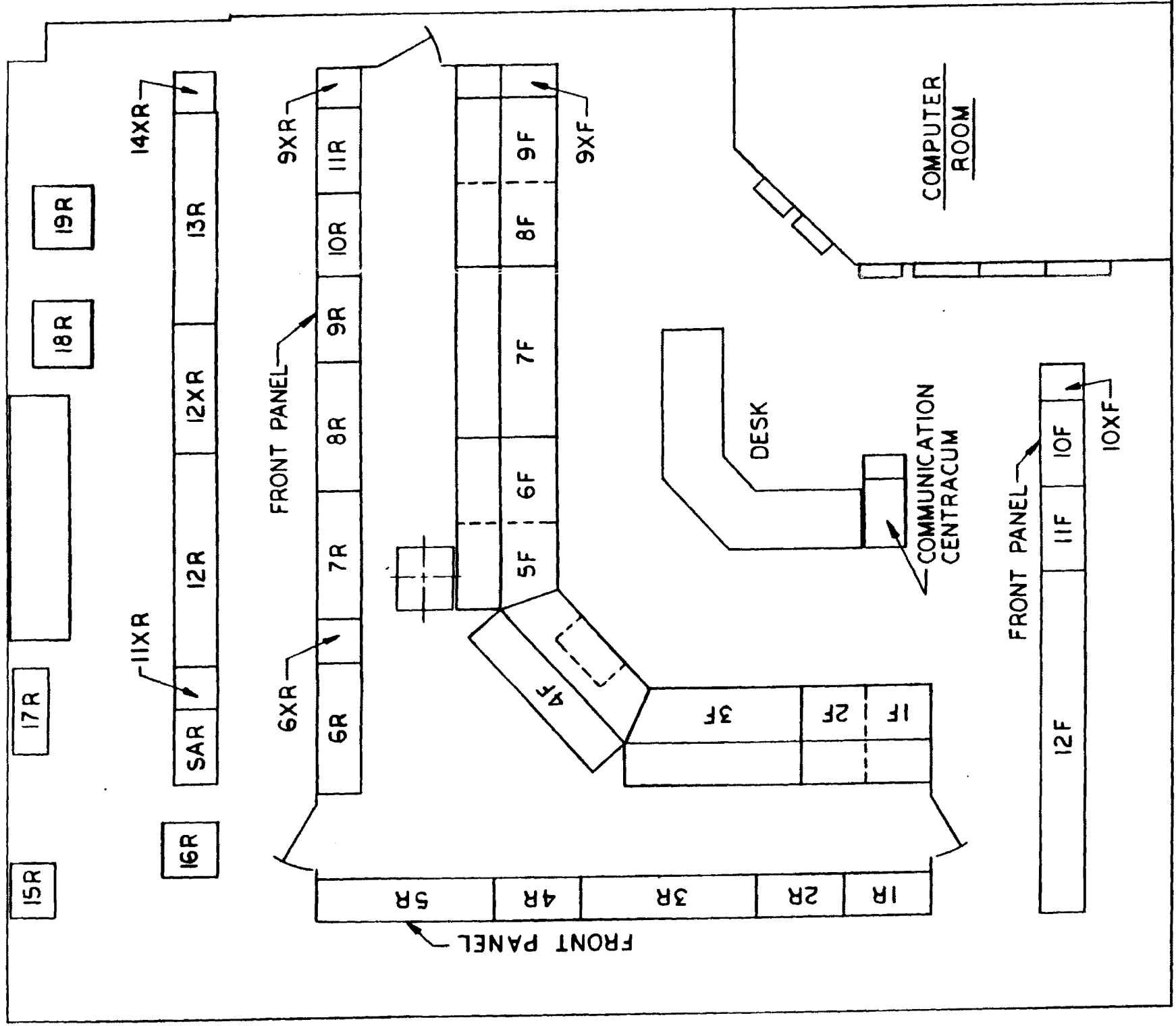
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**OCNGS UFSAR**

Figures 7.3-1A through 7.3-3C

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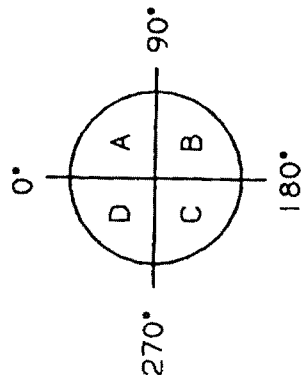
PANEL LAYOUT



NO.	DESCRIPTION
1F/2F	REACTOR & DRYWELL COOLING
3F	CLEAN UP & RECIRCULATION
4F	REACTOR CONTROL
5F/6F	FEEDWATER & CONDENSATE
7F	TURBINE
8F/9F	GENERATOR & AUXILIARY POWER
9XF	EMERGENCY DIESEL GENERATOR
10F	AREA & PROCESS RADIATION
10XF	AUGMENT OFFGAS
11F	ISOLATION
12F	SWITCHYARD - REMOTE CONTROL PANEL
1R	PROCESS RADIATION MONITOR
2R	AREA RADIATION MONITOR
3R	NEUTRON MONITORS
4R	NEUTRON FLUX CALIBRATION
5R	NEUTRON MONITORS
6R	PROTECTION CHANNEL NO. 1
6XR	PROTECTION SYSTEM OPERATIONS
7R	PROTECTION CHANNEL NO. 2
8R	TEMPERATURE RECORDERS
9R	FEEDWATER & RECIRCULATION
9XR	ENVIRONS MONITORING
10R	PROCESS INSTR. EQUIP.
11R	GAS TREATMENT & VENTILATION
11XR	TELEMETERING & GENERATOR PROTECTION
12R	GENERATOR & TRANSFORMER PROTECTION
12XR	TURBINE & AUXILIARY SYSTEM TEMP.
13R	TURBINE GENERATOR TEST & CHECKOUT & DRYWELL INERTING SYSTEM
14XR	METEOROLOGICAL MONITORING SYSTEM
15R	VMS CABINET
16R	RECORDING PANEL
17R	WIDE RANGE RX VESSEL LEVEL CONTROL CAB.
18R	SCRAM DISCHARGE VOLUME
19R	SCRAM DISCHARGE VOLUME
SAR	SEQUENCE ALARMS RECORDER

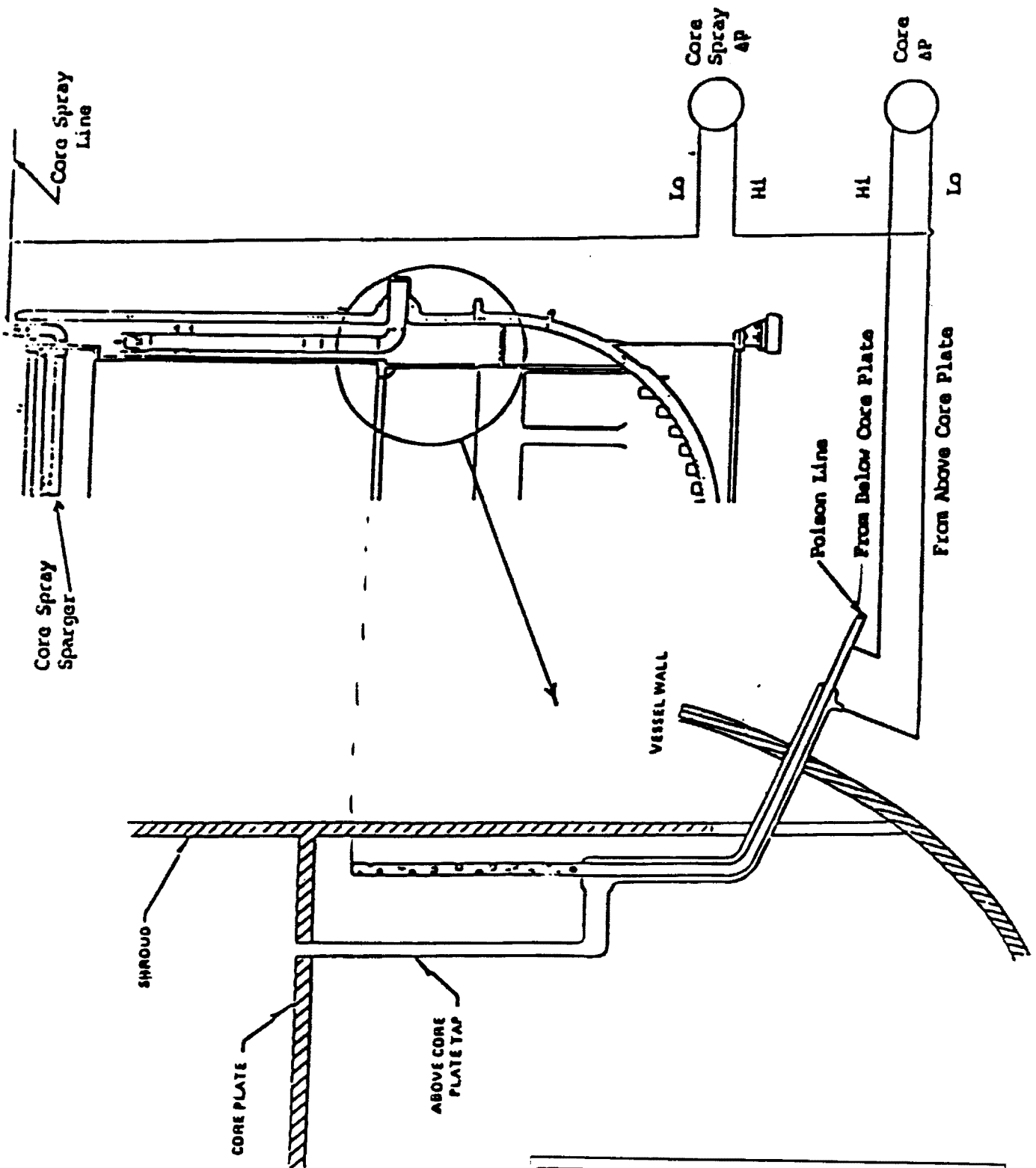
**GP Nuclear** Update - 5  
 Oyster Creek 12/90  
 Control Room Arrangement  
 Fig. 7.5-1





EXPLANATION

- FA 53
- ELEVATION
- QUADRANT
- AREA-F-FLANGE
- V-VESSEL
- N-NOZZLE
- B-BOTTOM HEAD
- S-SKIRT
- L-LAGGING (INSULATION)
- H-HEAD



**GPU Nuclear**

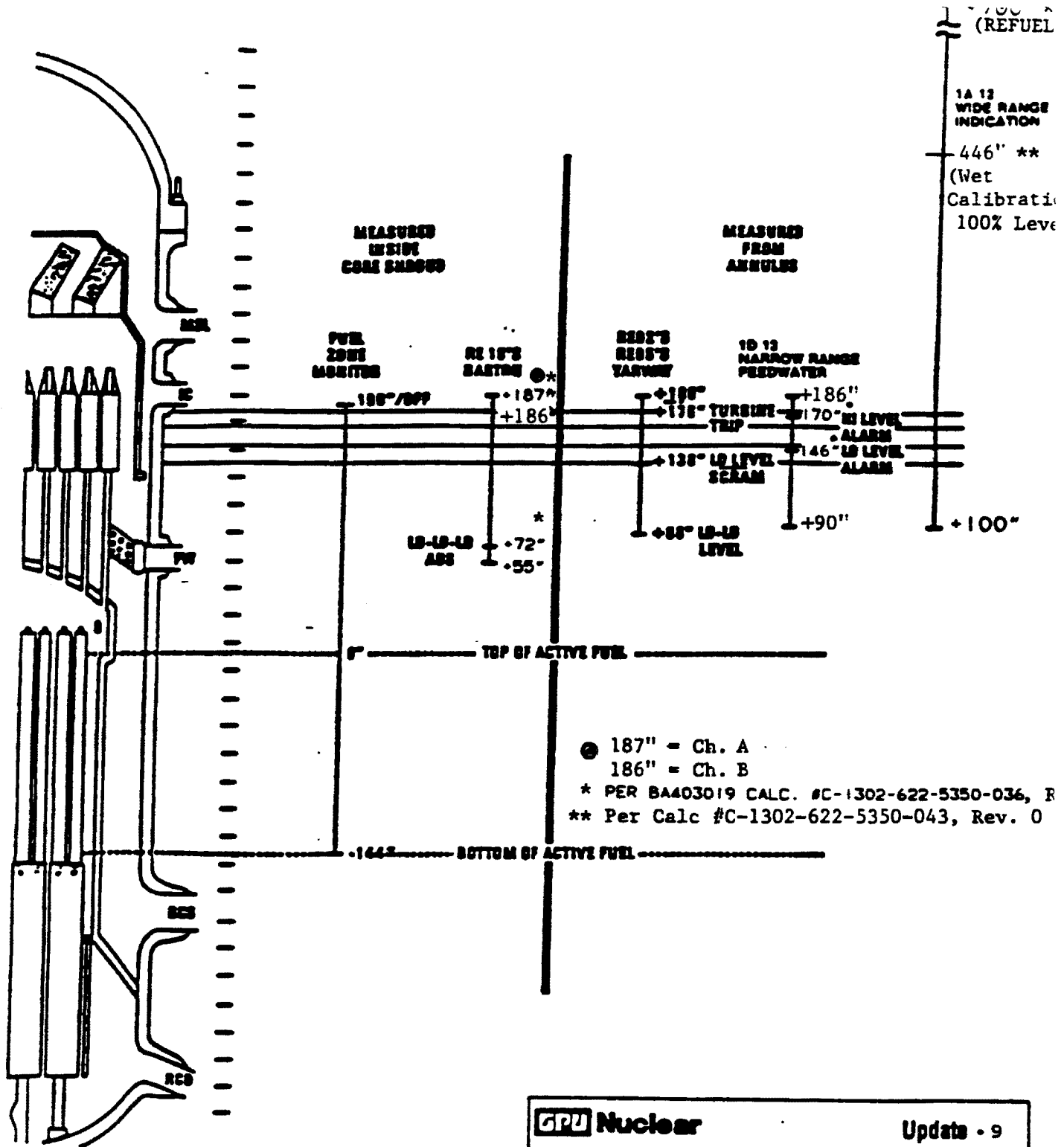
Update - 5

Oyster Creek

12/90

Core Differential Pressure Instrumentation

Fig. 7.6-2



<b>GPU Nuclear</b>	Update - 9
Oyster Creek	6/95
Reactor Water Level Instrumentation	
Fig. 7.5-3	

## OCNGS UFSAR

Figures 7.7-1 through 7.7-4

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**CONTROL ROD POSITION INDICATION**

Switch Number	Inches From Full Insert	Control Room Display	Rod Position
S51	-1½	Green light, no readout	Overtravel beyond full-in
S52	-3/8	Green light*	Normal full-in (latched)
S00	0	"00" readout*	Normal full-in (latched)
S01	3	"01" readout	Halfway between 00 and 02
S02	6	"02" readout	Locked position 02
S48	144	"48" readout**	Normal full-out (latched)
S49	144	Red light**	Normal full-out (latched)
S50	146	"Overtravel" annunciation	Overtravel beyond full-out

\* - Switches S51 and S00 close nearly simultaneously to show "00" readout with green backlighting.  
 \*\* - Switches S48 and S49 close simultaneously to show "48" readout with red backlighting.

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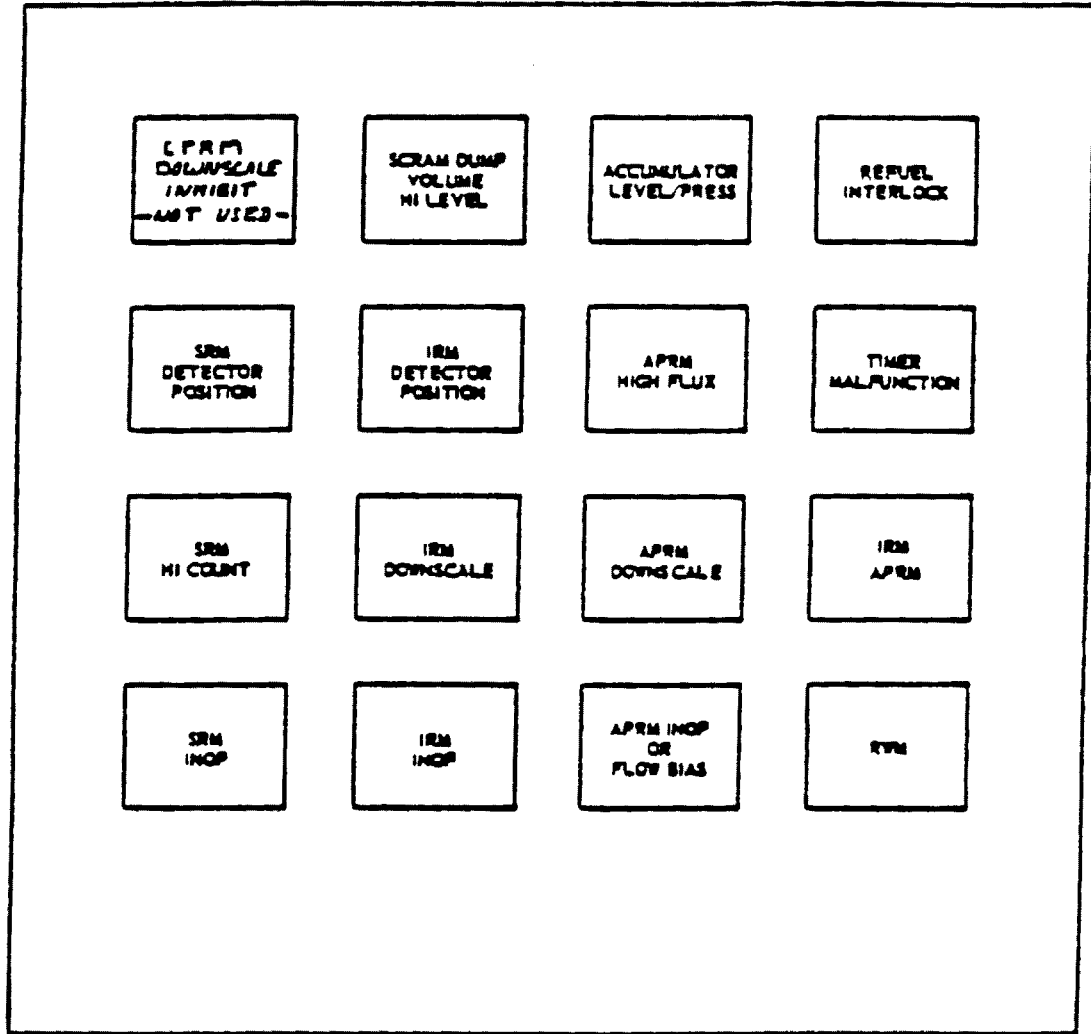
Control Rod Position Indication

Fig. 7.7-5

**OCNGS UFSAR**

Figures 7.7-6A through 7.7-6B

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**GPU Nuclear**

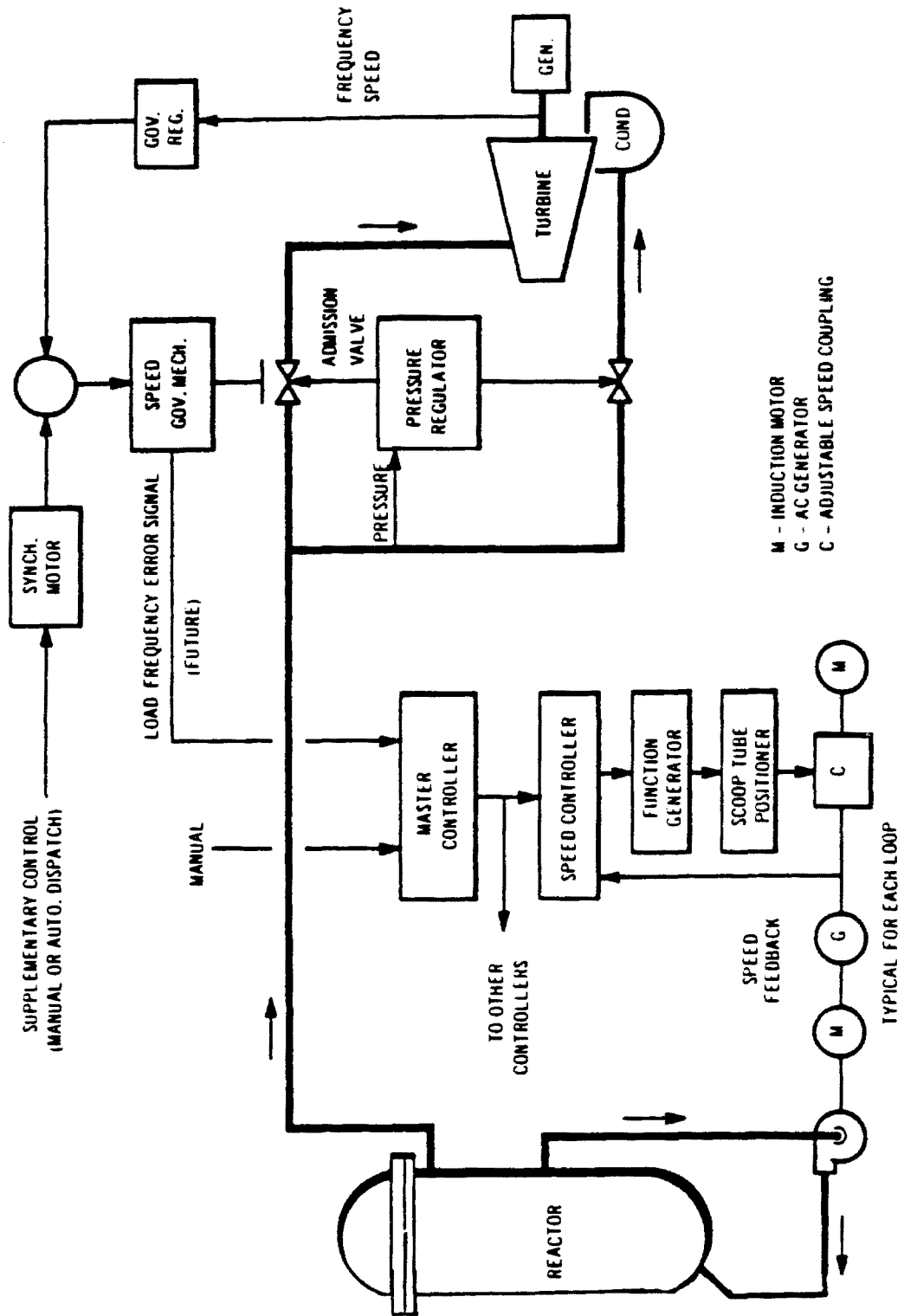
Update - 5

Oyster Creek

12/90

Rod Block Display

Fig. 7.7-7



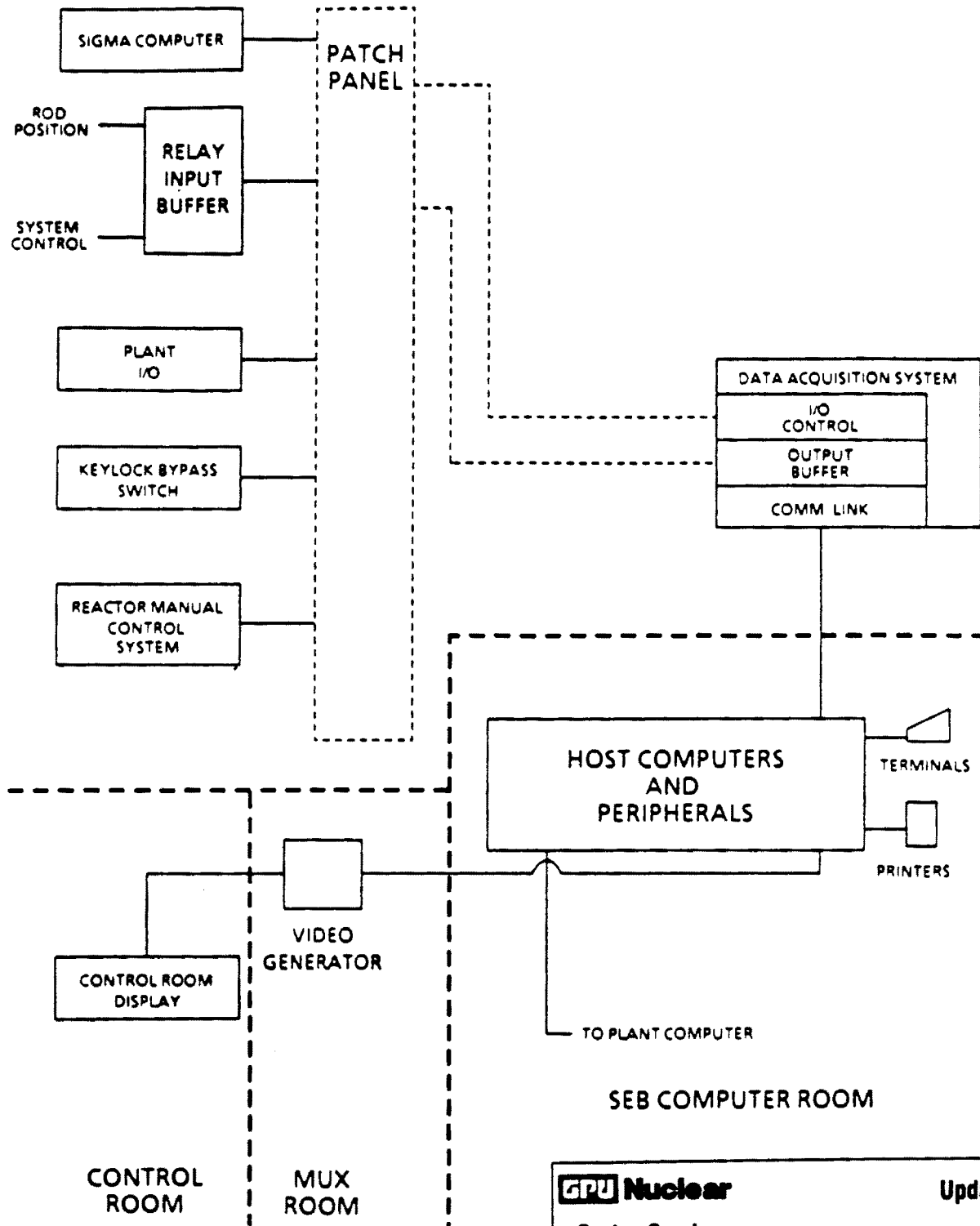
M - INDUCTION MOTOR  
 G - AC GENERATOR  
 C - ADJUSTABLE SPEED COUPLING

TYPICAL FOR EACH LOOP

**GPU Nuclear** Update - 5  
**Oyster Creek** 12/90  
**Single Cycle Boiling Water Reactor Flow Control System**  
 Fig. 7.7-8



# RWM CONFIGURATION



<b>GPU Nuclear</b>	<b>Update - 5</b>
<b>Oyster Creek</b>	<b>12/90</b>
<b>Rod Worth Minimizer — Simplified Block Diagram</b>	
<b>Fig. 7.7-9</b>	

**OCNGS UFSAR**

Figure 7.7-10

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