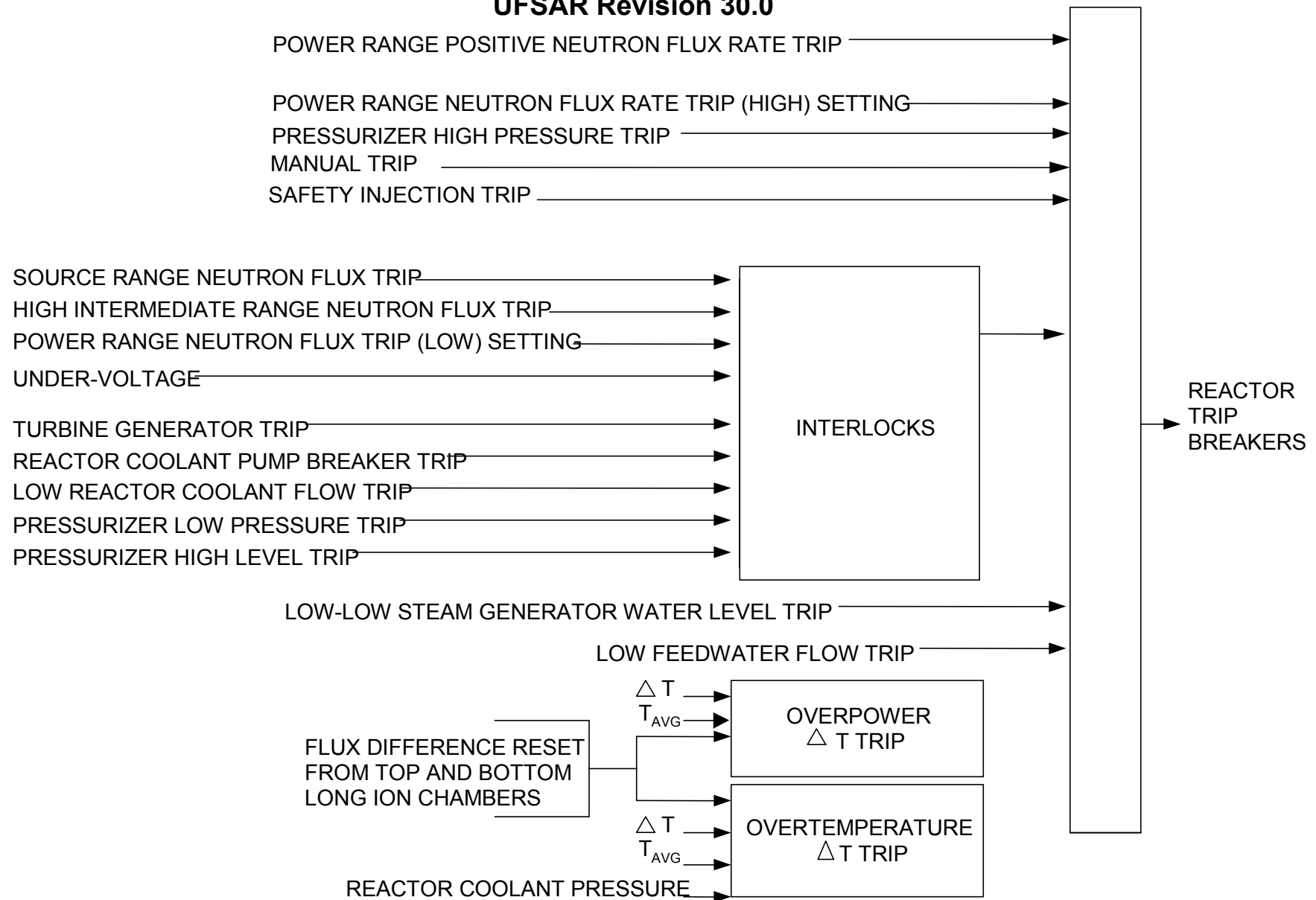
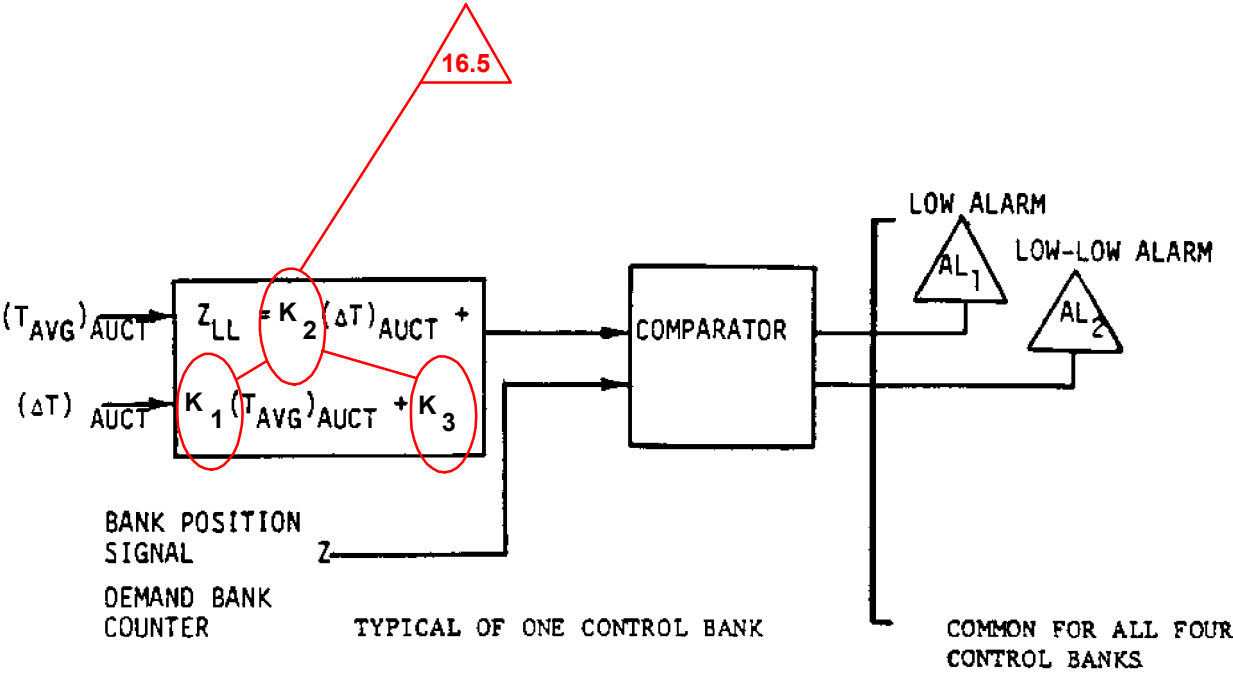


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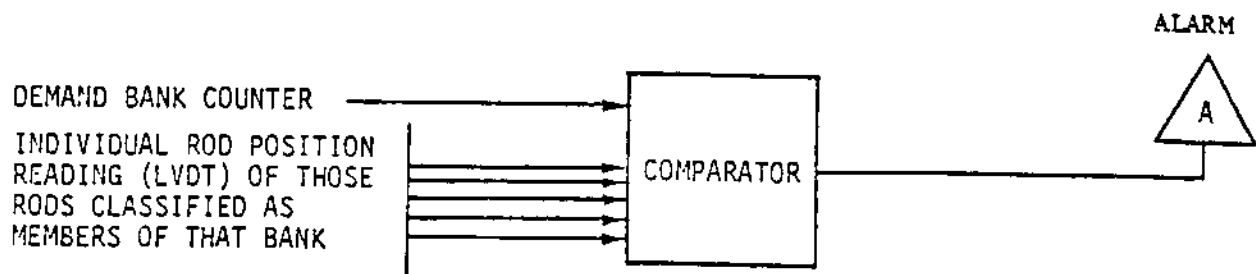
Revision 21	Change Description: UCR-1852		
AMERICAN ELECTRIC POWER COOK NUCLEAR PLANT NUCLEAR GENERATION GROUP BRIDGMAN, MICHIGAN	Title: REACTOR PROTECTION SYSTEMS		
	DWG. NO. UFSAR FIG 7.2-2		Sheet 1 of 1

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- NOTE :
- 1. ANALOG CIRCUITRY IS USED FOR THE COMPARATOR NETWORK.
 - 2. COMPARISON IS DONE FOR ALL CONTROL BANKS.

16.5	REVISED PER 98-UFSAR-375		
REV. NO.	DESCRIPTION		
REVISIONS			
AMERICAN ELECTRIC POWER COOK NUCLEAR PLANT NUCLEAR GENERATION GROUP BRIDGMAN, MICHIGAN	TITLE CONTROL ROD BANK INSERTION MONITOR		
	DWG. NO. FSAR FIG. 7.2-3		SH 1 of 1



NOTE:

1. DIGITAL OR ANALOG SIGNALS MAY BE USED FOR THE COMPARATOR COMPUTER INPUTS.
2. THE COMPARATOR WILL ENERGIZE THE ALARM IF THERE EXISTS A POSITION DIFFERENCE GREATER THAN A PRESET LIMIT BETWEEN ANY INDIVIDUAL ROD AND THE DEMAND BANK COUNTER.
3. COMPARISON IS INDIVIDUALLY DONE FOR ALL CONTROL BANKS.

ROD DEVIATION COMPARATOR

FIGURE 7.2-4

July, 1982

Ch. I (Typ. for Ch II & III)

Ch. IV

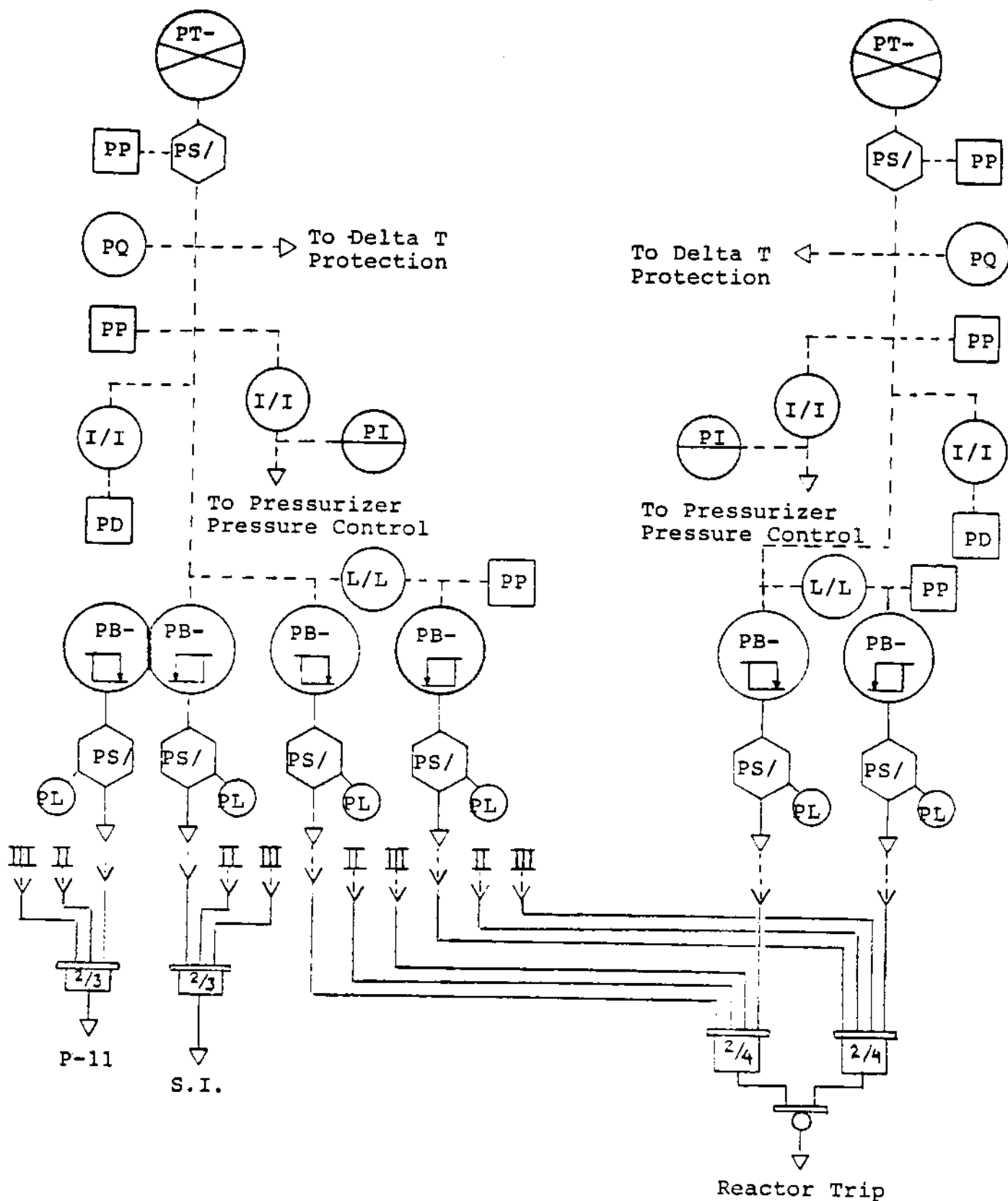


Fig. 7.2-5
PRESSURIZER PRESSURE PROTECTION

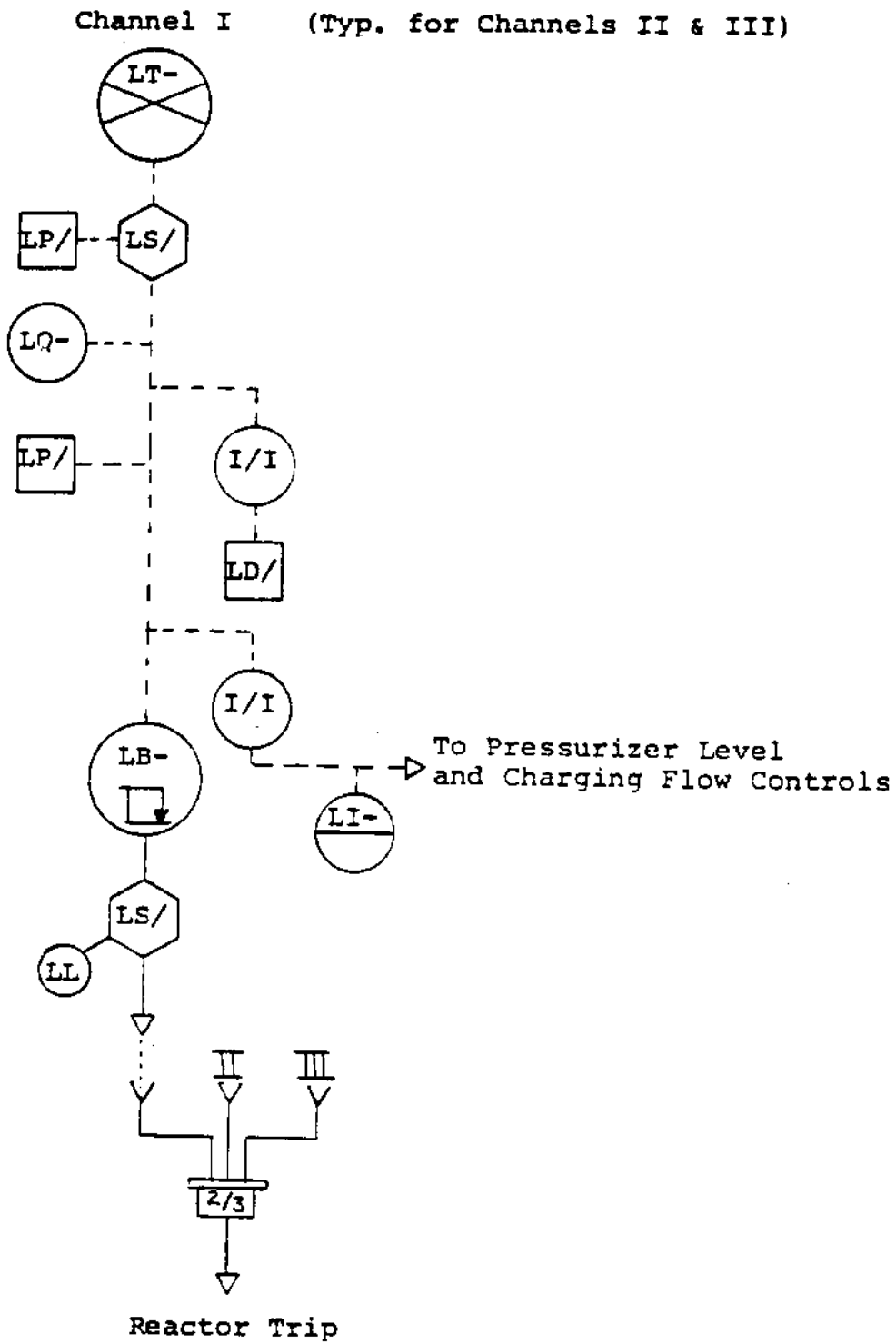
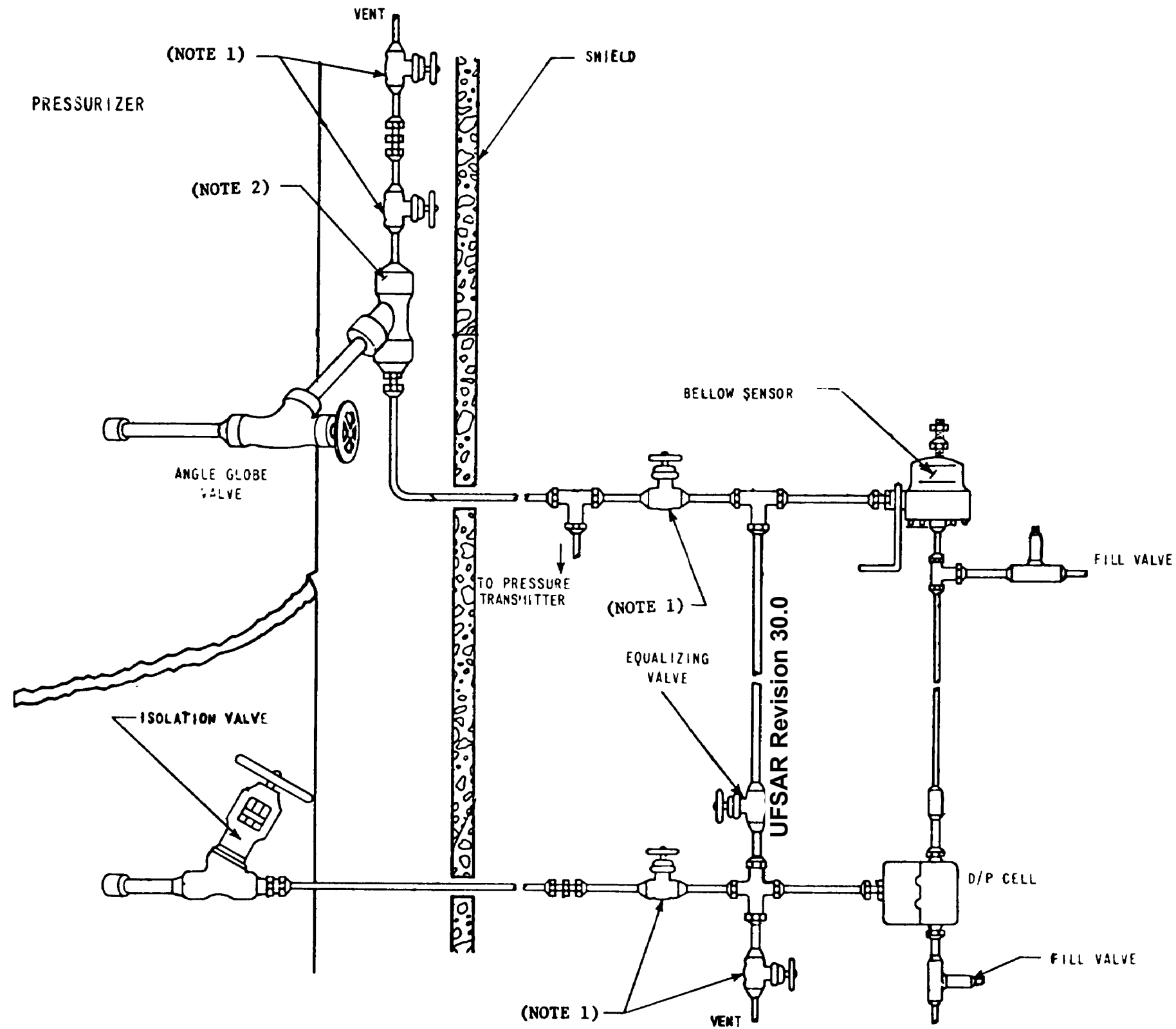


Fig. 7.2-6
Pressurizer Level Protection

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NOTES:

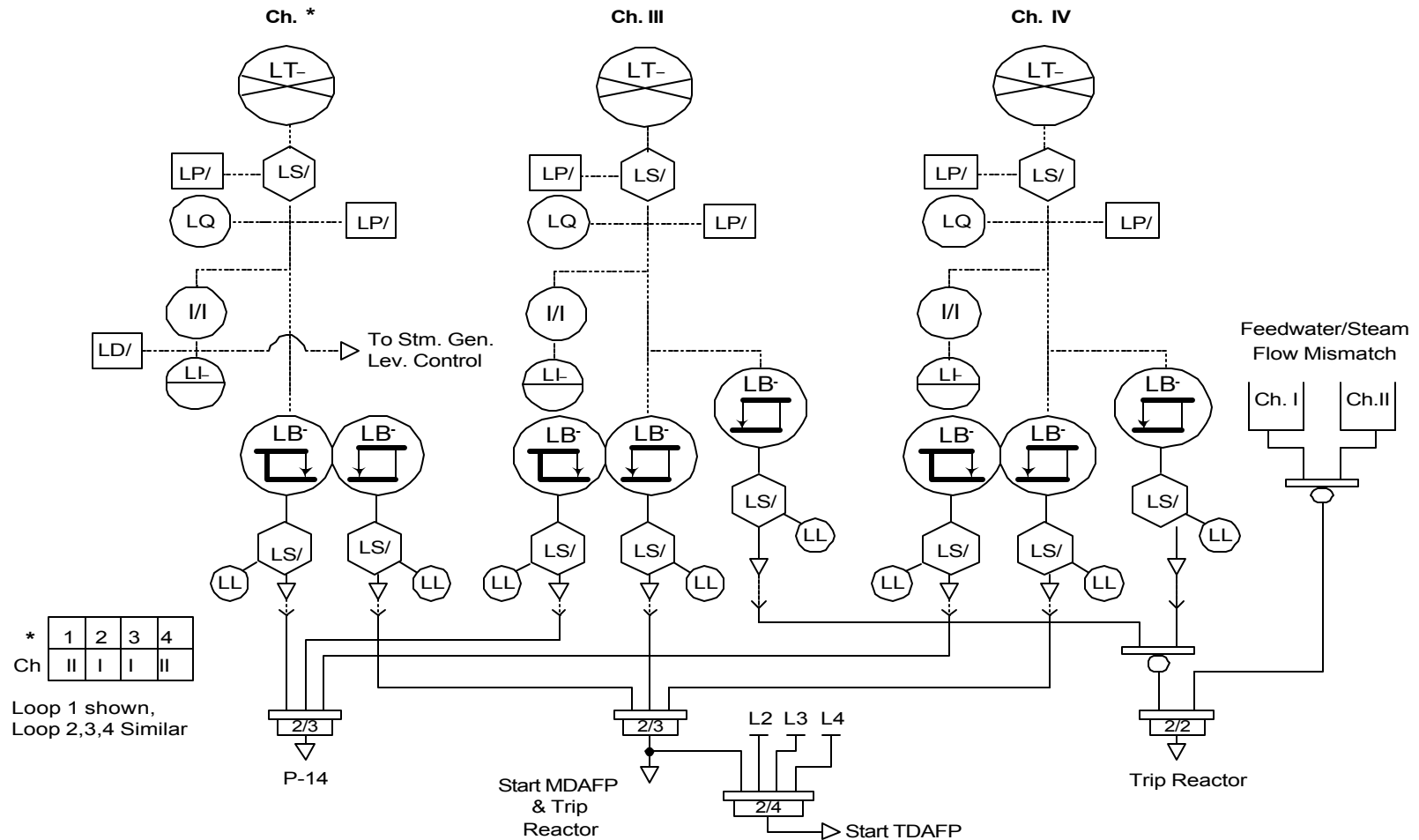
1. INSTRUMENT SHUT-OFF AND VENT
2. CONDENSATE RESERVOIR

PRESSURIZER SEALED REFERENCE
LEG LEVEL SYSTEM

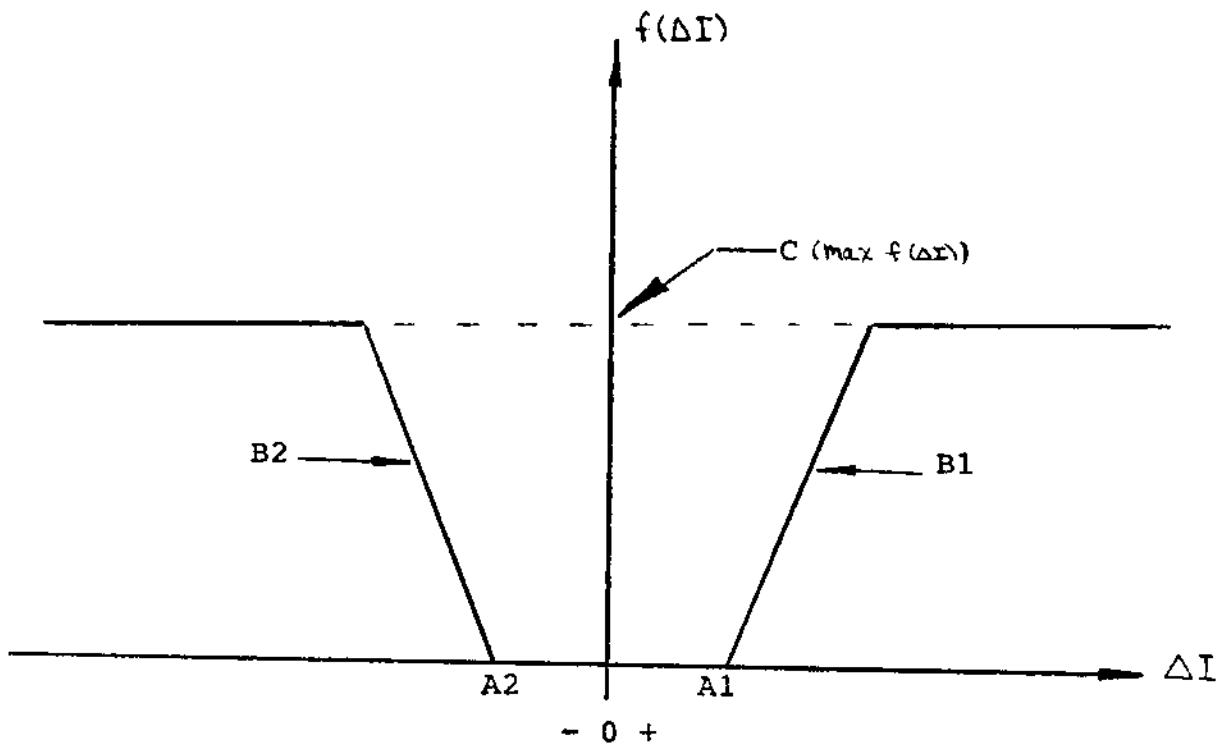
FIGURE 7.2-7

July, 1982

UFSAR Revision 30.0



Revision 17	Change Description: UCR-1181		
AMERICAN ELECTRIC POWER COOK NUCLEAR PLANT NUCLEAR GENERATION GROUP BRIDGMAN, MICHIGAN		Title: STEAM GENERATOR LEVEL PROTECTION	
		DWG. NO. UFSAR FIG 7.2-8	Sheet 1 of 1



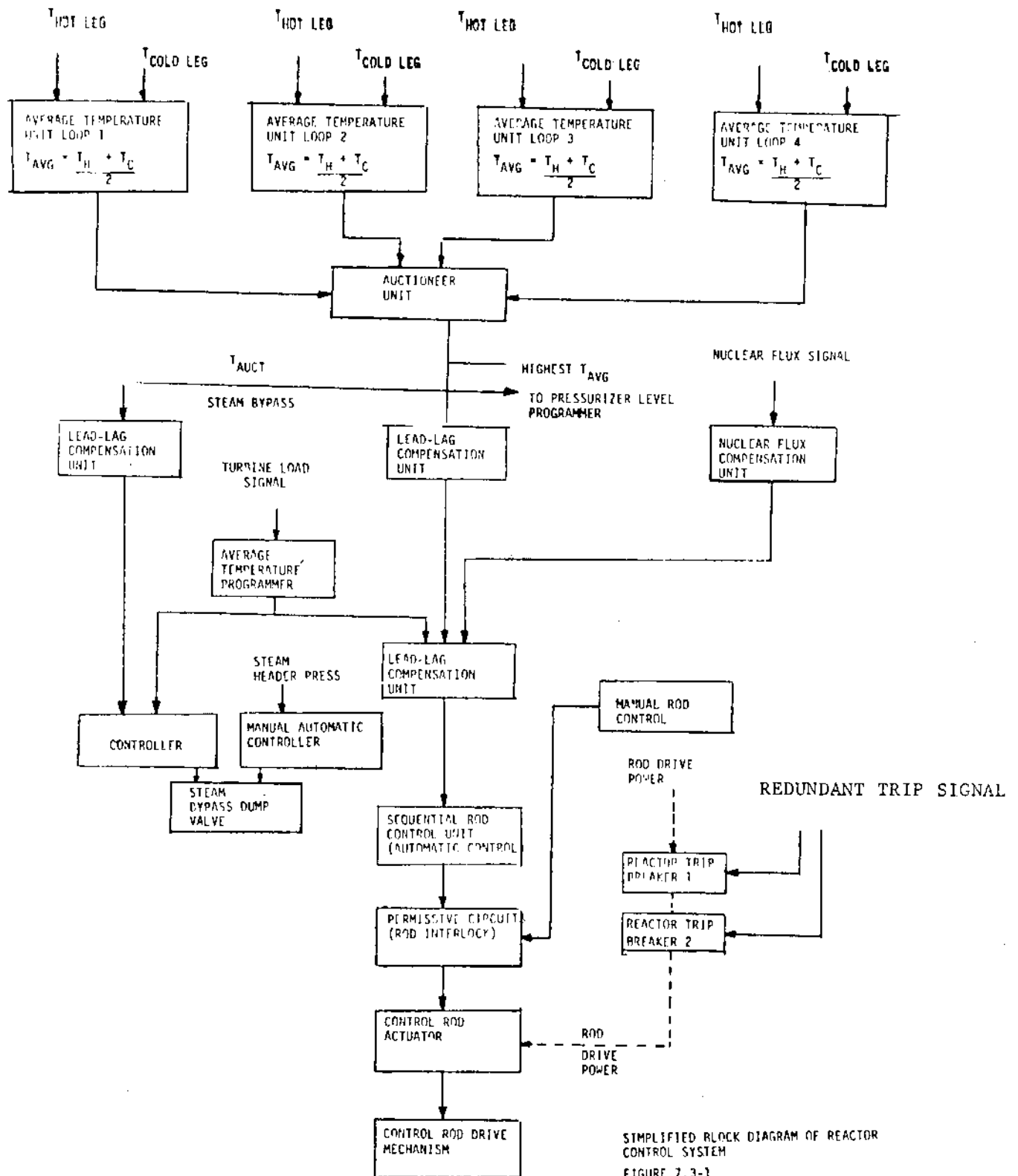
ΔI = Difference between upper and lower long ion chambers.
($q_t - q_b$)

1. For $q_t - q_b$ between $A2\%$ and $A1\%$, $f(\Delta I) = 0$
Where q_t and q_b are percent Rated Thermal Power in the top and bottom halves of the core respectively, and $q_t + q_b$ is the total thermal power in percent of Rated Thermal Power.
2. For each % that the magnitude of $(q_t - q_b)$ exceeds $A2\%$, the ΔT trip setpoint is automatically reduced by $B2\%$ of its value at Rated Thermal Power.
3. For each % that the magnitude of $(q_t - q_b)$ exceeds $A1\%$, the ΔT trip setpoint is automatically reduced by $B1\%$ of its value at Rated Thermal Power.

SETPOINT REDUCTION FUNCTION FOR OVERPOWER AND OVERTEMPERATURE
DELTA-T TRIPS

FIGURE 7.2-9

- NOTES: 1) Temperatures are measured at steam generator's inlet and outlet.
2) Pressure is measured at the pressurizer.



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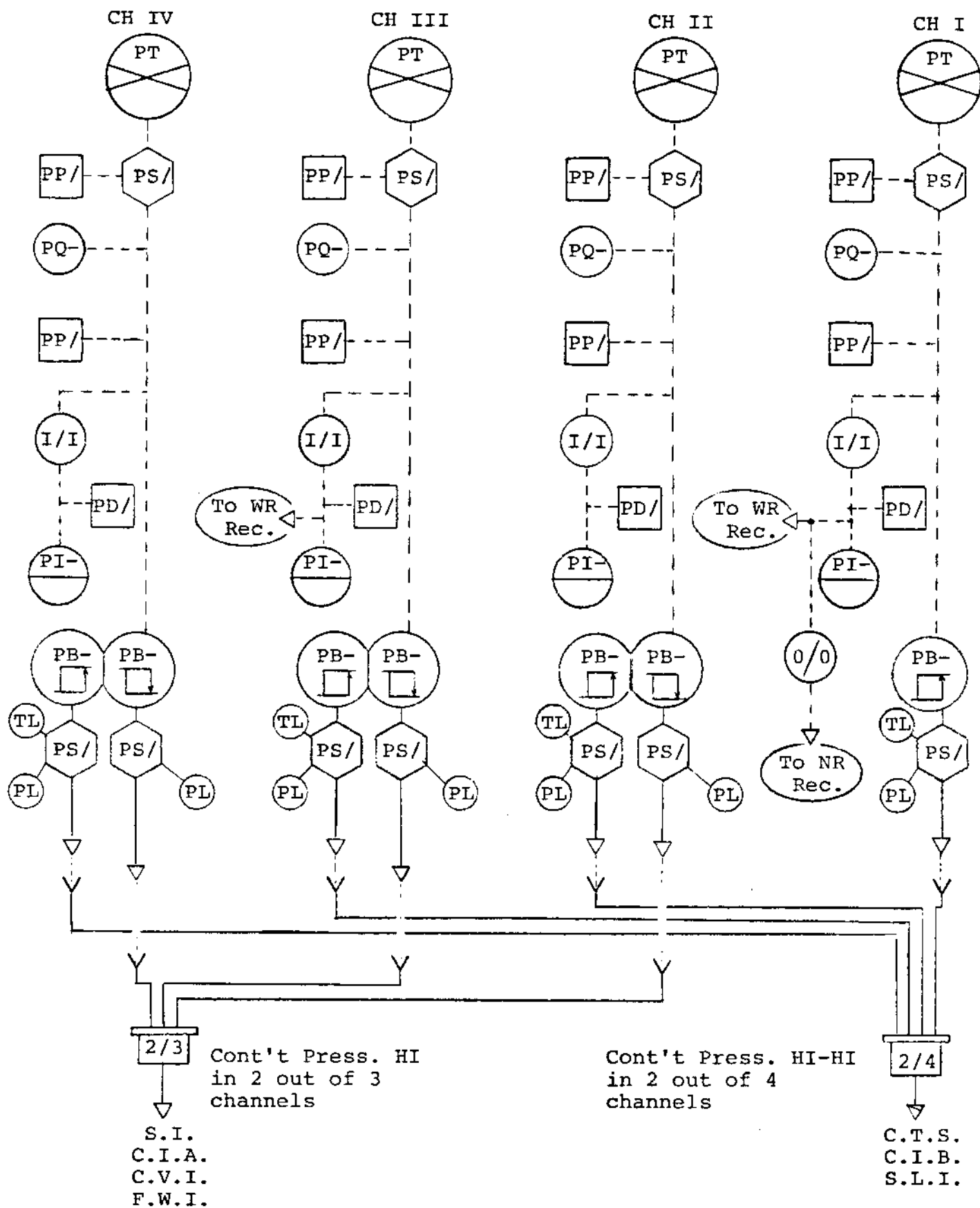


Fig. 7.5-1

CONTAINMENT PRESSURE PROTECTION

for definitions
see Table 7.2-4
July, 1982

UFSAR Revision 30.0

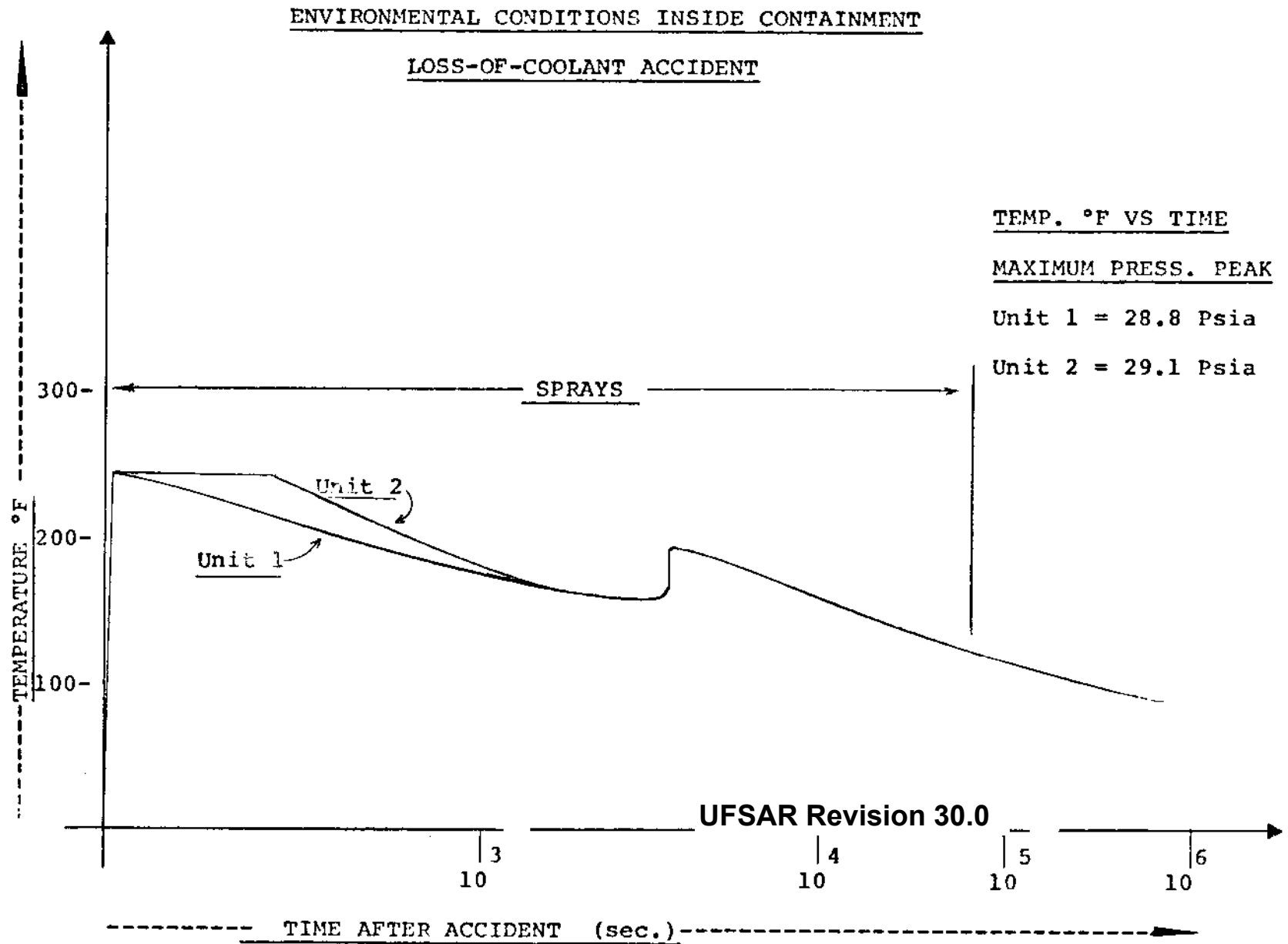


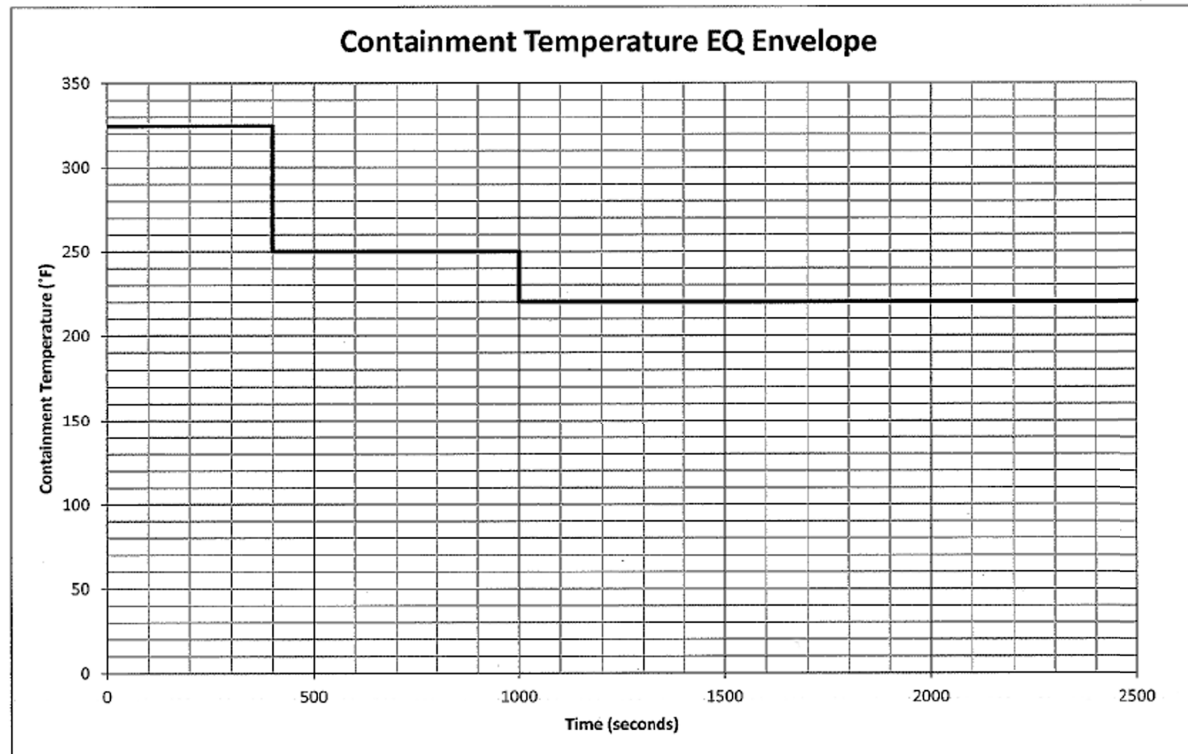
FIGURE 7.5-2
July, 1982

UFSAR Revision 30.0



INDIANA MICHIGAN POWER D. C. COOK NUCLEAR PLANT UPDATED FINAL SAFETY ANALYSIS REPORT

Revised: 27.0
Chapter: 7
Sheet: 1 of 1



UFSAR Figure: 7.5-3A

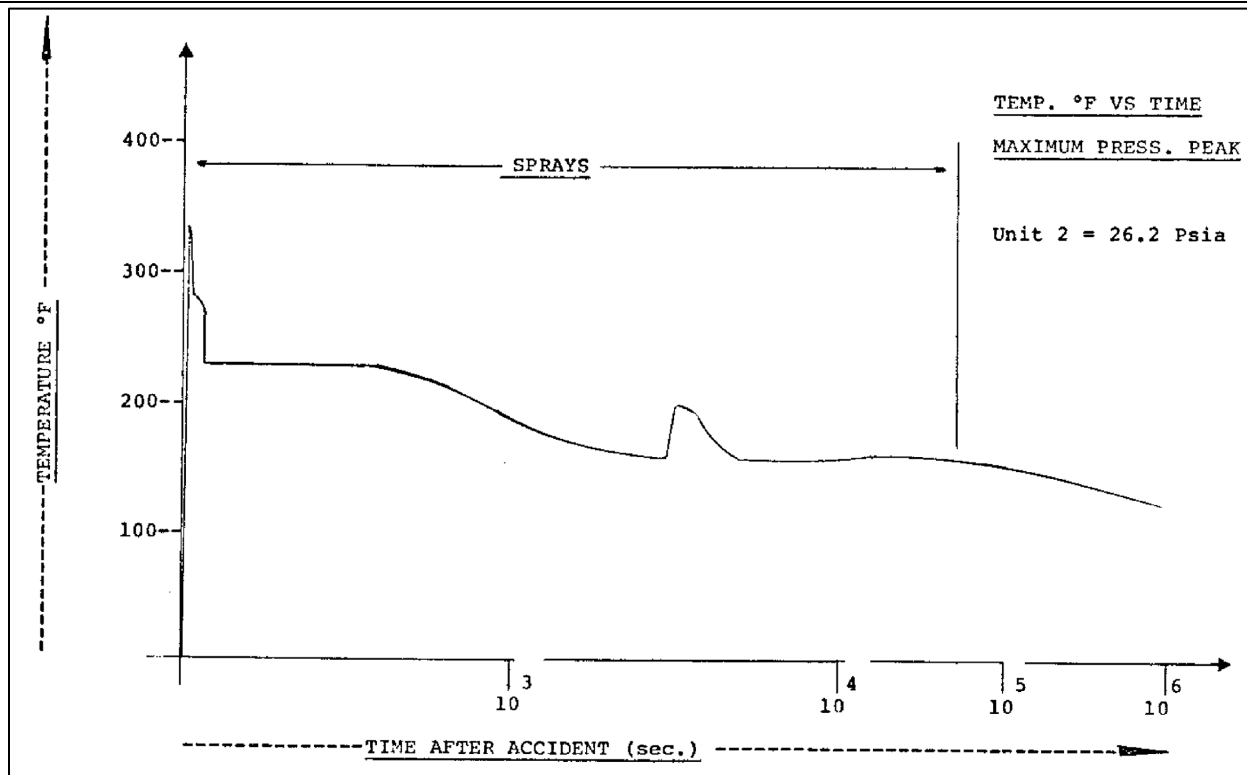
Change Description:
UCR-2054, Rev. 0

Unit 1

Title: Environmental Conditions Inside Containment - Main Steam Break (Unit 1)

UFSAR Revision 30.0

 <p>INDIANA MICHIGAN POWER <small>An AEP Company</small></p>	<p style="text-align: center;">INDIANA MICHIGAN POWER D. C. COOK NUCLEAR PLANT UPDATED FINAL SAFETY ANALYSIS REPORT</p>	<p>Revised: 27.0 Chapter: 7 Sheet: 1 of 1</p>
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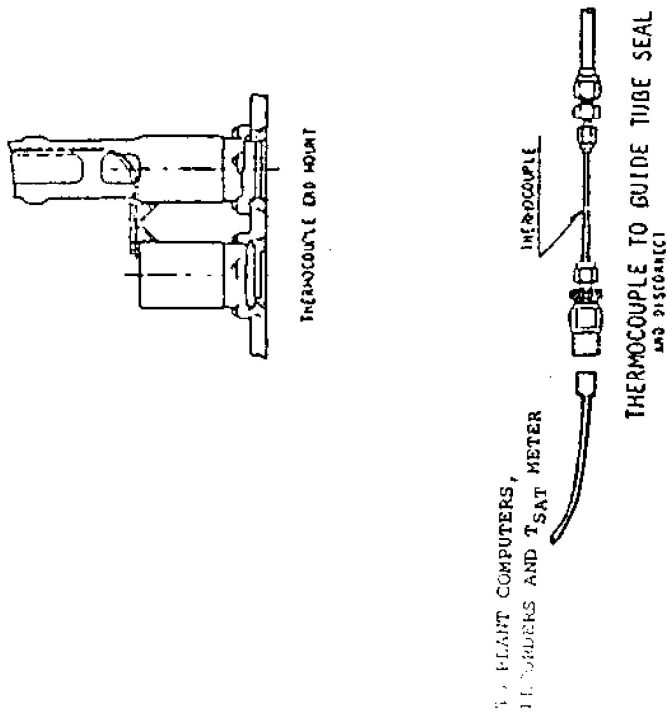
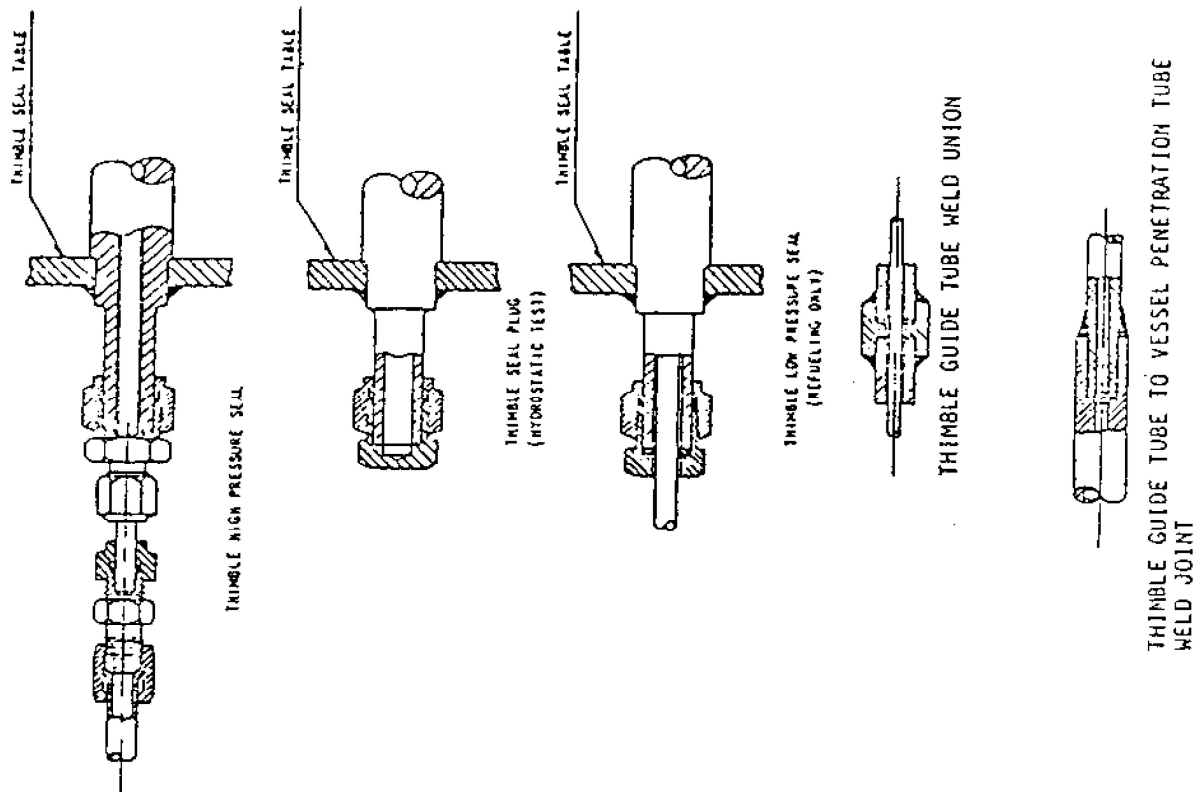


UFSAR Figure: 7.5-3B

Change Description:
UCR-2054, Rev. 0

Unit 2

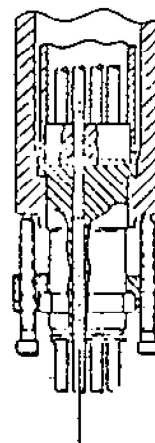
Title: Environmental Conditions Inside Containment - Main Steam Break (Unit 2)

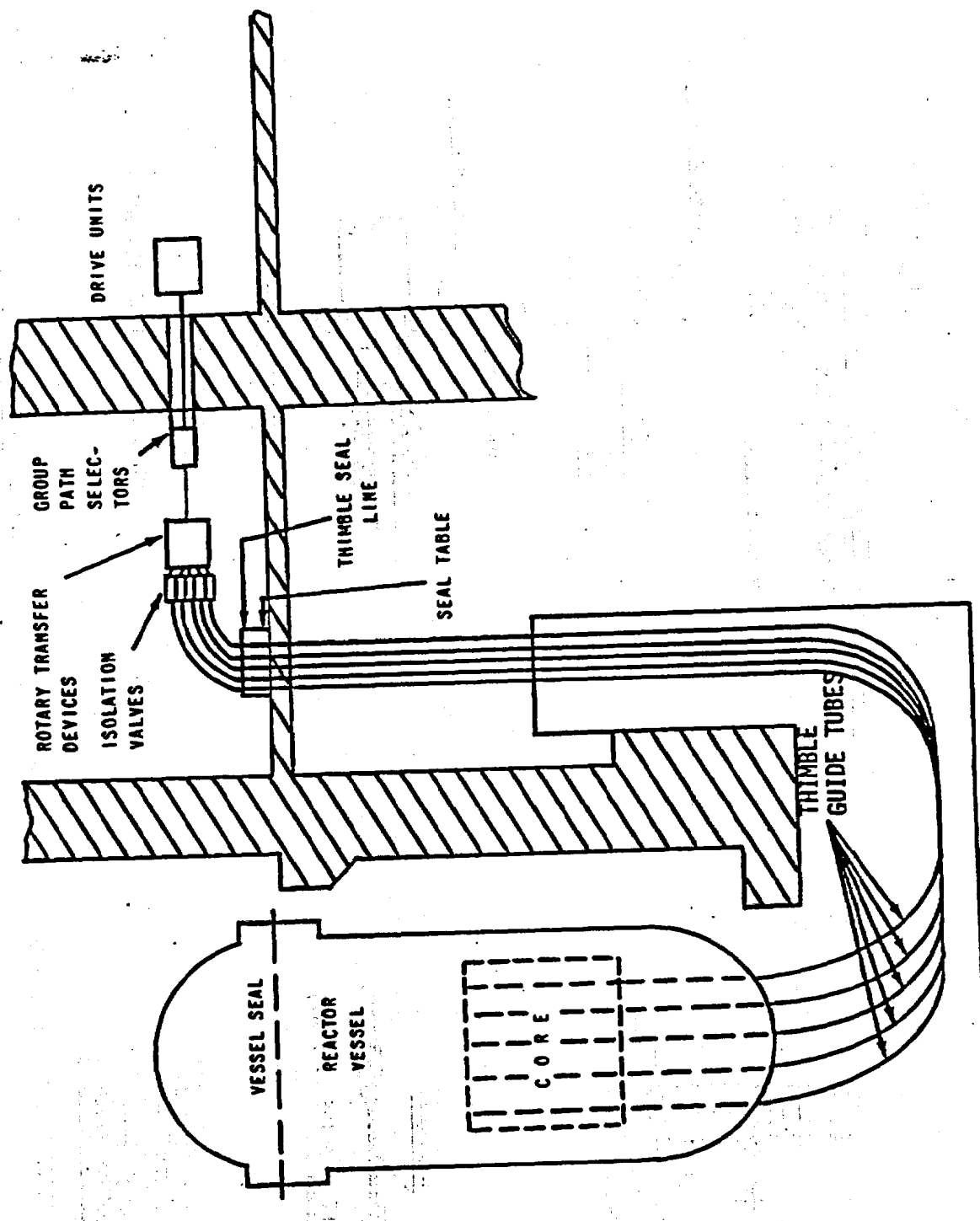


IN-CORE INSTRUMENTATION DETAILS

FIGURE 7.6-1

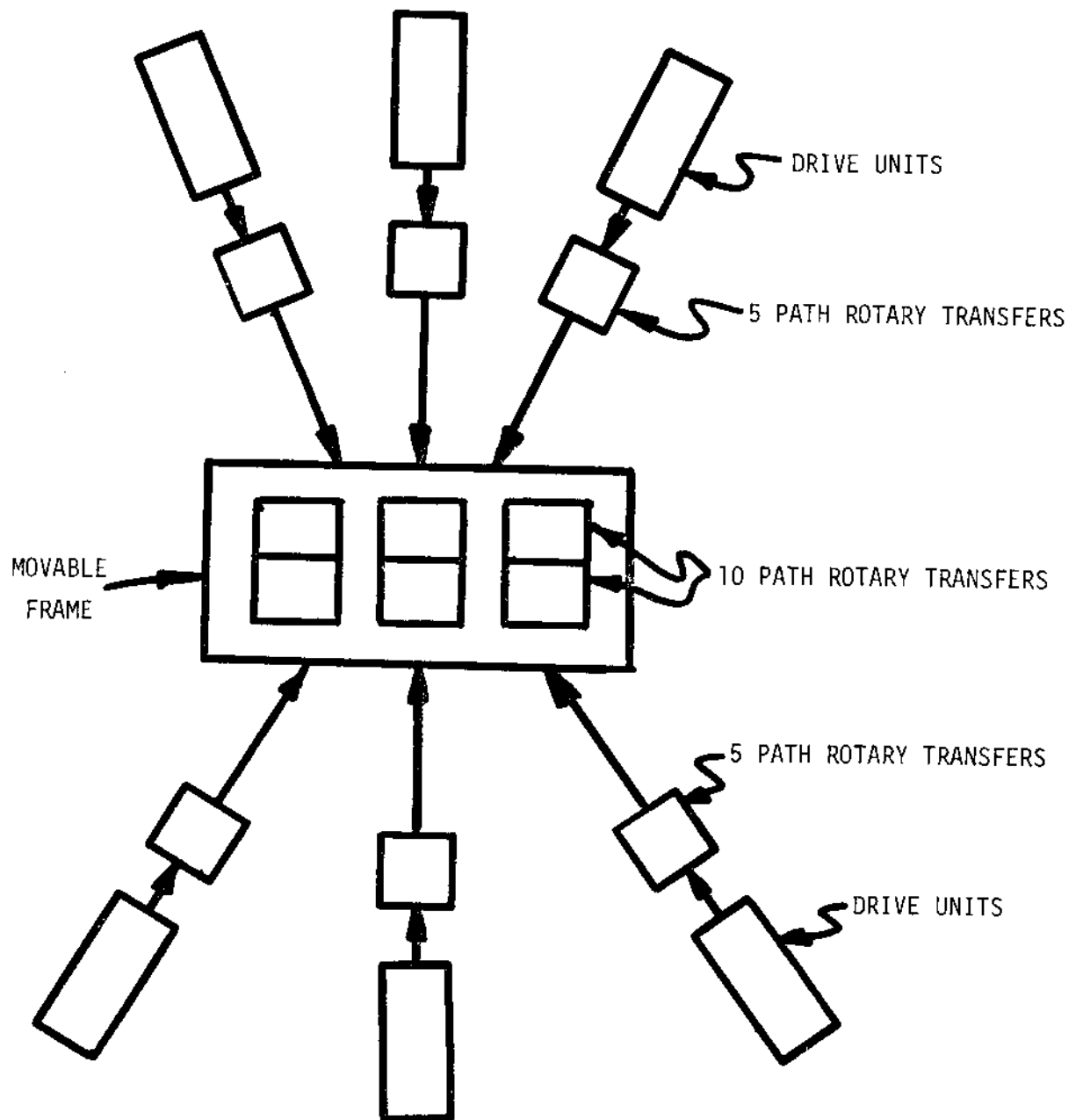
July, 1986





Typical Arrangement of Movable Miniature Neutron Flux Detector System
(Elevation View) **FIGURE 7.6-2**

July, 1982



SCHEMATIC ARRANGEMENT OF IN-CORE
FLUX DETECTORS (PLAN VIEW)

FIGURE 7.6-3

July, 1982

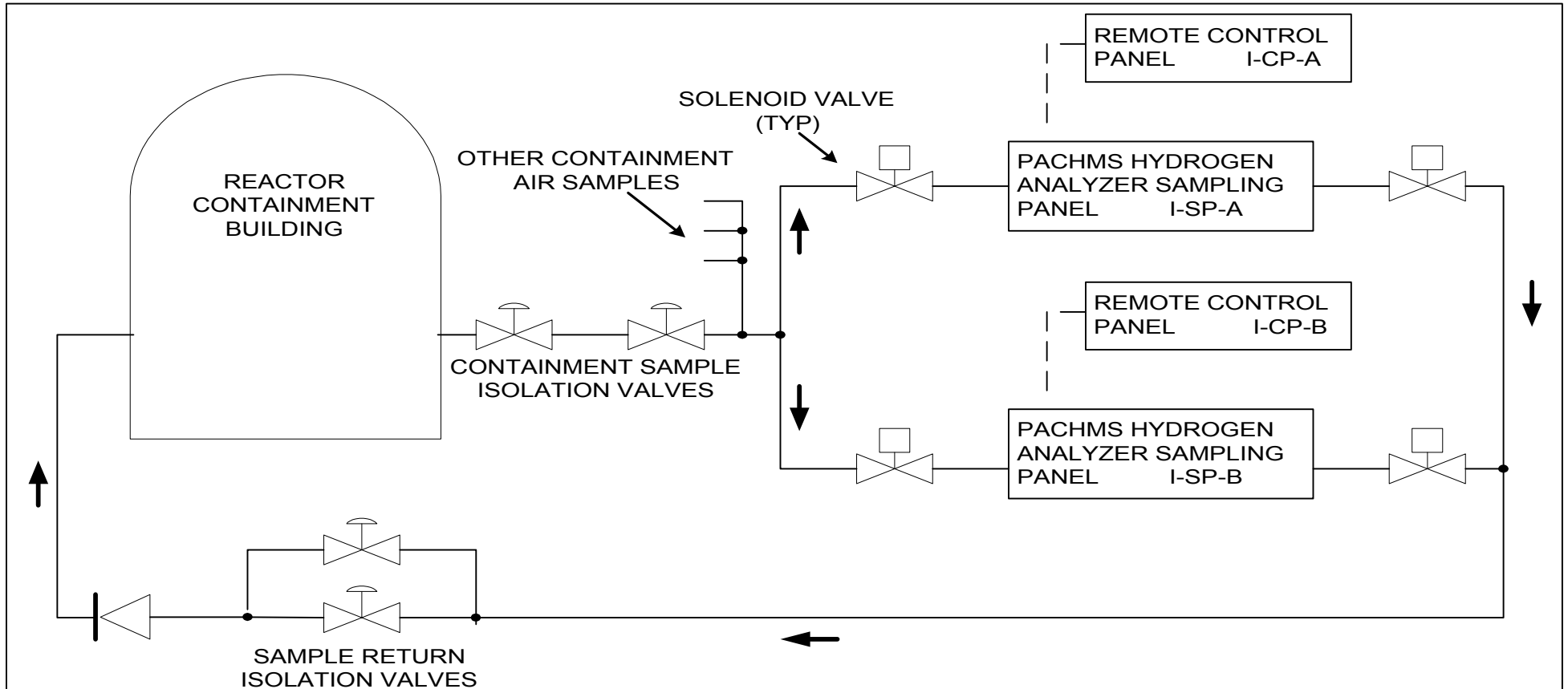
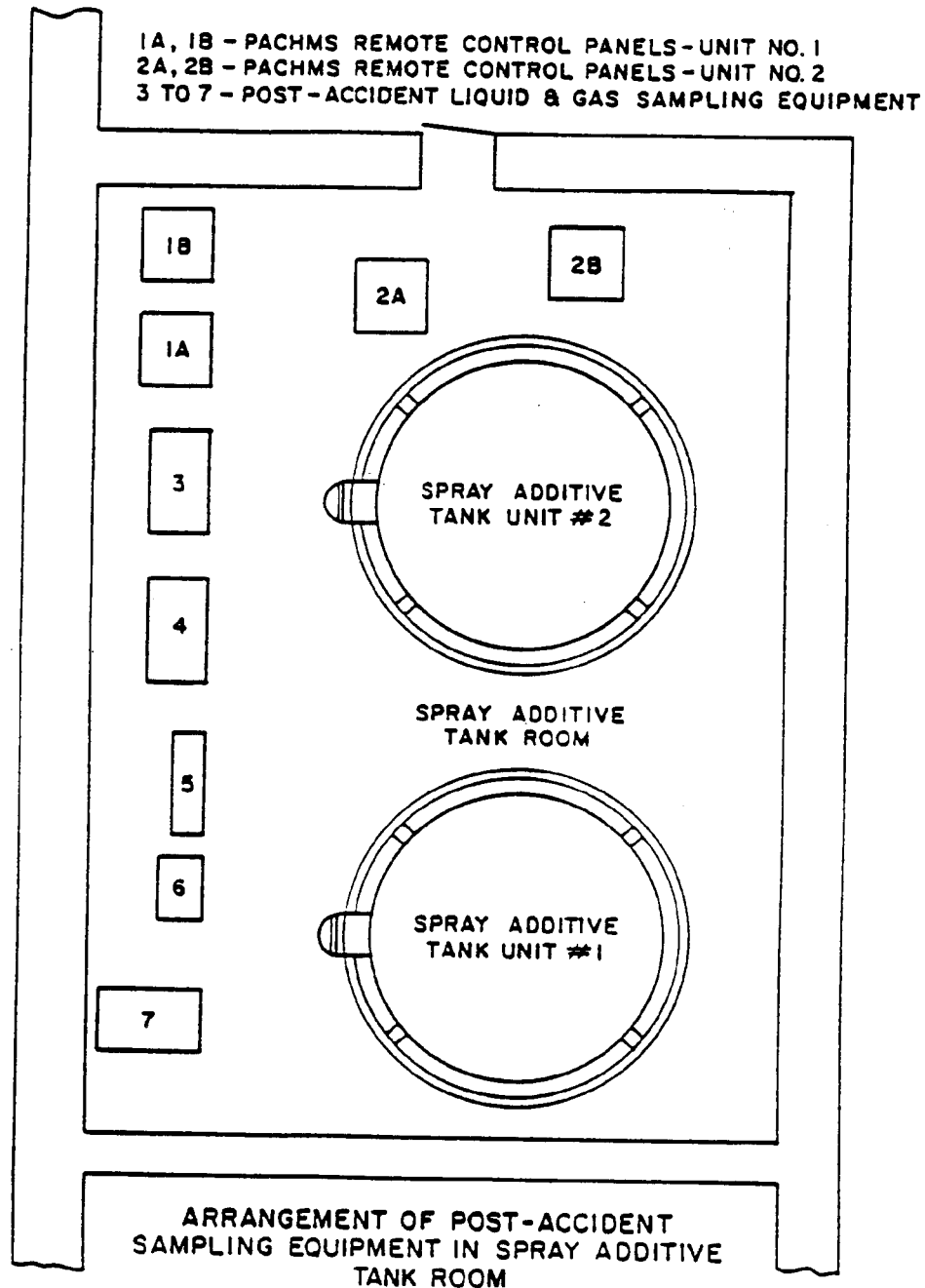


FIGURE 7.8-1

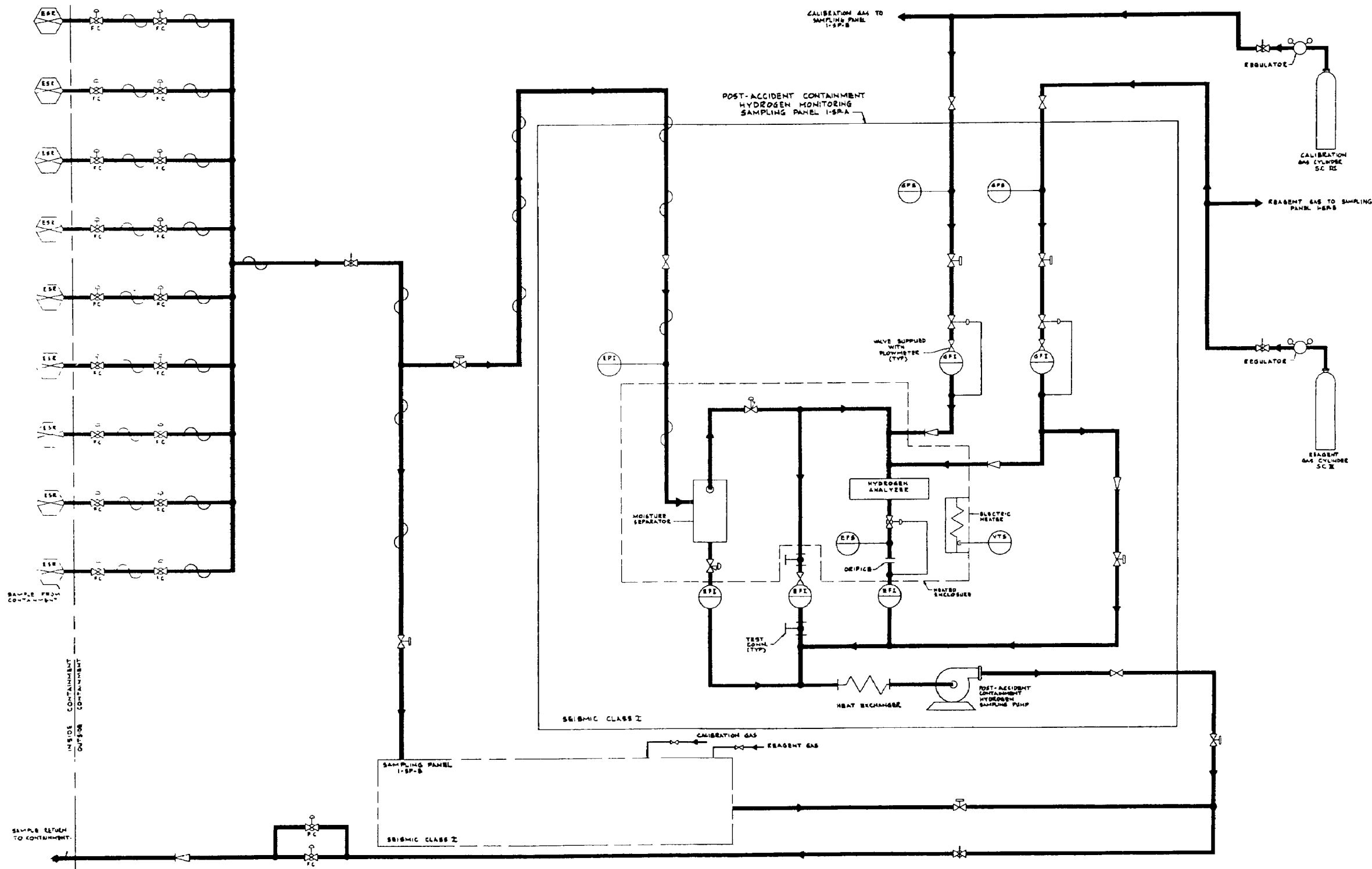
SCHEMATIC DIAGRAM OF POST-ACCIDENT CONTAINMENT HYDROGEN MONITORING SYSTEM (PACHMS)


Revision 17	Change Description: UCR-1077		
AMERICAN ELECTRIC POWER COOK NUCLEAR PLANT NUCLEAR GENERATION GROUP BRIDGMAN, MICHIGAN		Title: SCHEMATIC DIAGRAM OF POST-ACCIDENT CONTAINMENT HYDROGEN MONITORING SYSTEM (PACHMS)	
		DWG. NO. UFSAR FIG 7.8-1	Sheet 1 of 1

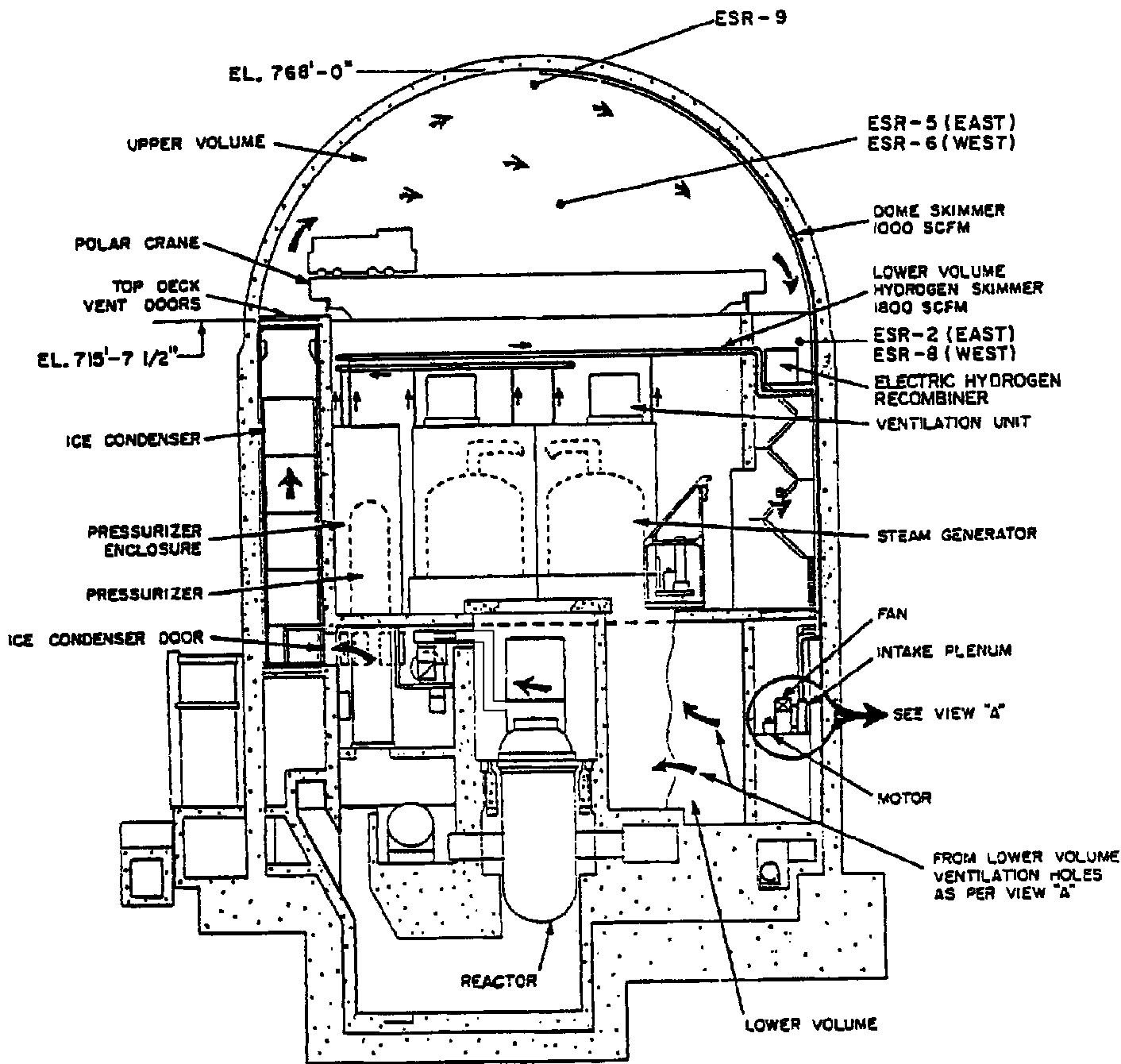
UFSAR Revision 30.0



17	REVISED PER UCR 1077	UNIT 1
REV. NO.	DESCRIPTION	
REVISIONS		
AMERICAN ELECTRIC POWER COOK NUCLEAR PLANT NUCLEAR GENERATION GROUP BRIDGMAN, MICHIGAN	TITLE ARRANGEMENT OF POST-ACCIDENT SAMPLING EQUIPMENT IN SPRAY ADDITIVE TANK ROOM	
	DWG. NO. FSAR FIG. 7.8-2	SH 1 of 1



	17	REVISED PER UCR 1077	
DATE	NO.	DESCRIPTION	APPR.
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INDIANA MICHIGAN POWER COMPANY DONALD C. COOK NUCLEAR PLANT			
BRIDGMAN		MICHIGAN	
UNIT NO. 1 POST-ACCIDENT CONT. HYDROGEN			
DWG. NO. FSAR FIG. 7.8 - 3			
ARCH	ELEC	MECH	STR
SCALE -	30 -		
DATE -	04 -		
DESIGN ENGINEERING DIVISION			
 AMERICAN ELECTRIC POWER SERVICE CORP.		AEP SERVICE CORP. 1 RIVERSIDE PLAZA COLUMBUS, OH 43215	

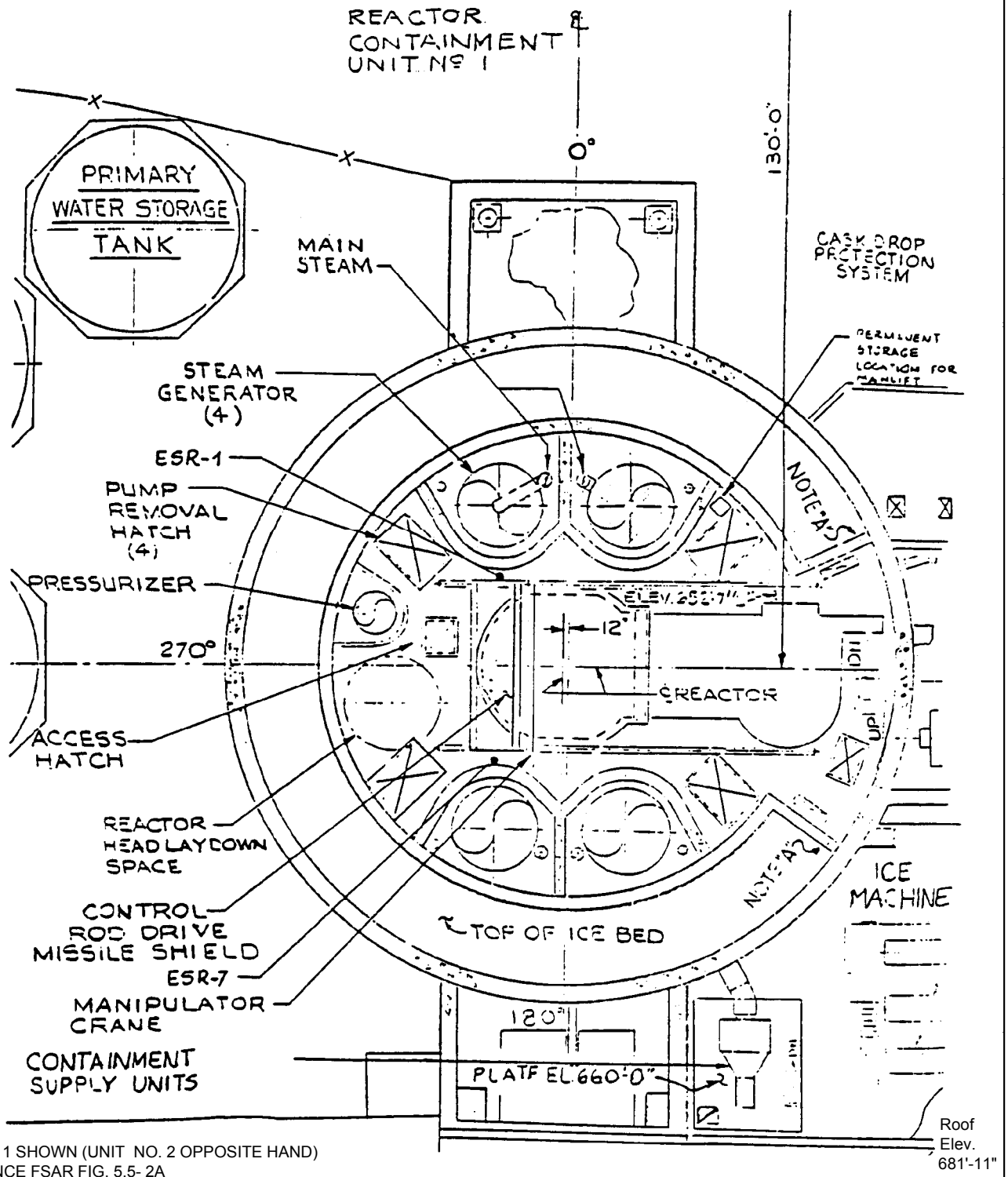


NOTES:

1. UNIT NO.1 AND 2 SHOWN.
2. REFERENCE FSAR FIG. 5.5-3



21.2	REVISED PER UCR-1837, REV.0.		UNIT 1
REV. NO.	DESCRIPTION		
REVISIONS			
AMERICAN ELECTRIC POWER COOK NUCLEAR PLANT NUCLEAR GENERATION GROUP BRIDGMAN, MICHIGAN	TITLE SECTION OF CONTAINMENT DETAILING LOCATION OF HYDROGEN MONITORING SAMPLE PORTS ESR-2,5,6,8, AND 9		
	DWG. NO. FSAR FIG. 7.8-4		SH 1 OF 1



17

REVISED PER UCR 1077

UNIT 1

REV. NO.

DESCRIPTION

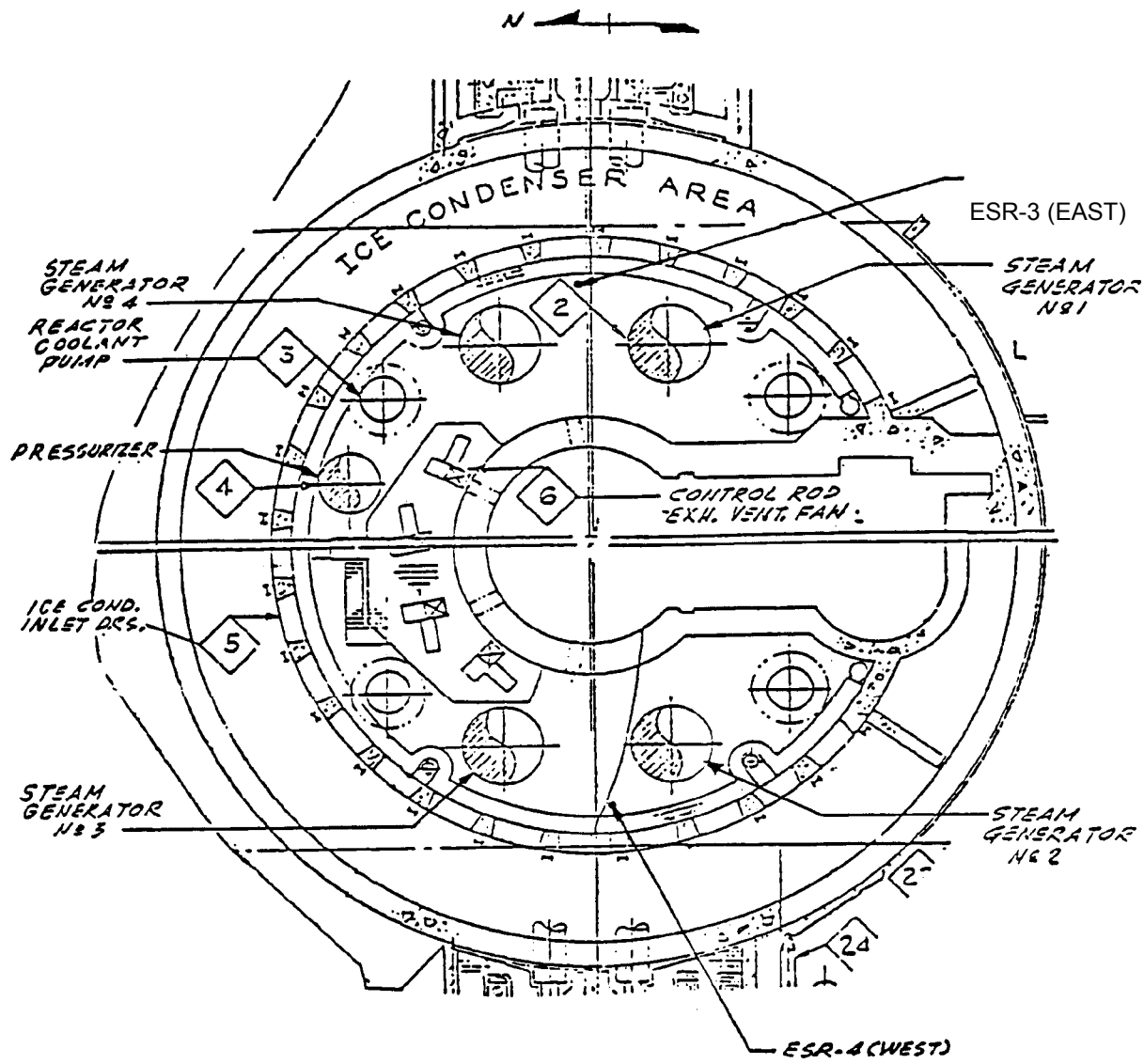
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AMERICAN ELECTRIC POWER
COOK NUCLEAR PLANT
NUCLEAR GENERATION GROUP
BRIDGMAN, MICHIGAN

TITLE Plan Elevation of Containment (Elevation - 650'-0") Detailing Location of Hydrogen Monitoring Sample Ports ESR- 1 & 7

DWG. NO. **FSAR FIG. 7.8-5**

SH 1 of 1



NOTES; 1. UNIT NO. 1 SHOWN (UNIT NO. 2 OPPOSITE HAND)
2. REFERENCE DWG. NO. 12-5169

17	REVISED PER UCR 1077		UNIT 1
REV. NO.	DESCRIPTION		
REVISIONS			
AMERICAN ELECTRIC POWER COOK NUCLEAR PLANT NUCLEAR GENERATION GROUP BRIDGMAN, MICHIGAN	TITLE Plan Elevation of Containment (Elevation 633'-0") Detailing Location of Hydrogen Monitoring Sample Ports ESR-3 & 4		
	DWG. NO. FSAR FIG. 7.8-6		SH 1 of 1