



Wisconsin Electric POWER COMPANY
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October 1, 1984

Mr. H. R. Denton, Director
Office of Nuclear Reactor Regulation
U. S. NUCLEAR REGULATORY COMMISSION
Washington, D. C. 20555

Attention: Mr. J. R. Miller, Chief
Operating Reactors, Branch 3

Gentlemen:

DOCKET NOS. 50-266 AND 50-301
NEW PLANT COMPUTER SYSTEM
POINT BEACH NUCLEAR PLANT, UNITS 1 AND 2

Our March 8, 1984 letter provided the most recent schedule for the installation of the Safety Assessment System (SAS) (our version of the Safety Parameter Display System). The purpose of this letter is to inform you of the current status of the procurement of the new computer system, of which the SAS is a part, for installation at our Point Beach Nuclear Plant.

Recently, the contract with Electronic Associates, Inc. (EAI), for the manufacturing and furnishing of the new plant computer system was terminated because EAI was unable to meet the terms and conditions of the contract for reasons not attributable to Wisconsin Electric. Mr. T. G. Colburn, the NRC Project Manager for Point Beach, was informed of the contract termination in a telephone conversation with Mr. C. W. Krause of Wisconsin Electric on August 3, 1984.

Currently, we are performing a status evaluation of all of the system hardware and software which were removed from EAI. The results of this evaluation will be used to request proposals from other contractors to complete the system and software work. We expect to have a new contractor identified and a contract signed by the end of 1984. At that time, we will be able to provide a revised schedule for the development, installation, startup/testing, and operation of the new computer system. With these circumstances, it is very unlikely that we will be able to meet the SAS completion date of December 31, 1985 contained in the NRC Confirmatory Order dated July 3, 1984.

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This delay in the installation of our new computer system will also affect the completion of several other items identified in the July 3, 1984 Order. These items include Technical Support Center (TSC) data, Emergency Operations Facility (EOF) data, real time, off-site meteorological monitoring and dose assessment, Regulatory Guide 1.97 parameters, thermocouple monitoring and processing, and the Radiation Monitoring System. The following is a discussion of the effects and the compensatory actions we have taken, or will take, to mitigate these effects:

1. Safety Assessment System

As described in previous correspondence, the SAS is designed to fulfill the requirements of NUREG-0737, Item I.D.2, Plant Safety Parameter Display Console. The SAS will not be complete until the new plant computer system is installed. However, to a certain extent, the Auxiliary Safety Instrumentation Panels (ASIP's) which we are currently installing are a seismically designed, analog equivalent to the SAS. (A list of the recorders available in the control room, a list of ASIP instruments, and a drawing of each of the two ASIP's are attached.) The analog strip chart recorders available on each of the two ASIP's will allow us to record and trend some parameters not currently recorded in the control room but which will be recorded by the new computer system. These include selected core exit thermocouple averages, subcooling, and wide and narrow range reactor vessel water level.

2. Technical Support Center Data

Because the final TSC instrumentation displays are an integral part of the new computer output display system, final operability of the TSC is dependent upon the new computer system. The plant parameters currently displayed in the TSC, as described in Table 2.2.2.b-2 of our March 14, 1980 submittal and in our March 8, 1981 letter, will continue to be provided using interim loop configurations. Additionally, an RMS terminal is available in the TSC to display the status and indications of the RMS.

3. Emergency Operations Facility Data

As with the TSC, the EOF instrumentation displays are an integral part of the computer output display system. Final operability of the EOF is, therefore, dependent upon the computer. Currently, we use a high speed telecopier to update plant status at the EOF. This

mechanism for providing plant status was demonstrated during the September 11, 1984 emergency drill held at the plant and proved to be effective. This practice will be continued until the computer system is operational.

4. Off-Site Dose Assessment

The new computer system will automatically receive RMS and MET data and will perform off-site dose assessments. Currently, these assessments are performed using a program in the Corporate computer system with manual input of MET and RMS data. The dose assessment methodology used in this program is the same as that which will be used in conjunction with the Class A model to perform dose assessments using the new computer. This manual input to the Corporate computer system will continue to be used until the new computer system is operational.

5. Regulatory Guide 1.97 Parameters

Numerous Regulatory Guide 1.97 parameters, as listed in our September 1, 1983 submittal, will be displayed on either the SAS CRT or the Plant Process Computer System CRT. Additionally, the new computer system will record those parameters not presently recorded in the control room. The analog display of these parameters is currently, or will be, available in the control room when the ASIP's and the thermocouple monitoring process rack equipment, mentioned in Item 6 below, are installed. Therefore, the computer system delay will essentially affect only the backup CRT display configuration of Regulatory Guide 1.97 instrumentation and the historical recording of those parameters which are not already recorded in the control room. Reactor Coolant System (RCS) wide-range loop temperature, RCS wide-range pressure, and steam generator wide-range water level are already recorded in the control room on strip chart recorders. Certain additional parameters, including RCS subcooling, core exit thermocouple temperature, and compensated reactor vessel water level, will be temporarily displayed and recorded on dedicated ASIP recorders as noted in Item 1 above.

6. Thermocouple Monitoring and Processing

In view of the delays in the installation of the new computer system, we have purchased and are installing

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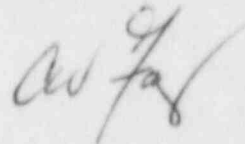
new thermocouple monitoring equipment in the Foxboro SPEC 200 process racks. This equipment will enable us to display and record several parameters on the ASIP's which would have otherwise been unavailable until the new computer system is operational. These parameters are reactor coolant system subcooling and averaged thermocouple readings based on selected core exit thermocouples and compensated reactor vessel level.

7. RMS and MET Monitoring

Currently, all MET data which would be available through the computer are available in the control room on analog strip chart recorders. There are no remote MET displays in either the TSC or the EOF. MET information is relayed to the TSC and EOF by telephone. All RMS data are available through the RMS displays in both the control room and the TSC. RMS data are relayed to the EOF through the use of a high speed telecopier or the telephone.

In summary, any delay in the installation of the new computer system will affect a number of items. However, we believe that our previous compensatory actions and the additional steps we are now taking are sufficient to mitigate the effects of the delay. We will continue to keep you informed of the status of the new computer and will provide a revised schedule as soon as a new contractor is chosen and a new schedule is available. Should you have any questions concerning this information, please contact us.

Very truly yours,



Vice President-Nuclear Power

C. W. Fay

Attachment

Copy to NRC Resident Inspector

TABLE 1

CONTROL ROOM RECORDERS
(After ASIP's are Installed)

<u>Location</u>	<u>No. of Pens</u>	<u>Description/Application</u>	<u>Range</u>	<u>Units</u>
<u>UNIT 1</u>				
1. 1-C04 (Main Control Board)	3	RCS Wide-Range Pressure (LOOP A)	0-3000	PSIG
		RCS Wide-Range Pressure (LOOP A)	0-3000	PSIG
		RCS Wide-Range Pressure (LOOP B)	0-3000	PSIG
2. 1-C04 (Main Control Board)	2	RCS Cold Leg Temperature (LOOP A)	50-750	Deg. F
		RCS Hot Leg Temperature (LOOP A)	50-750	Deg. F
3. 1-C04 (Main Control Board)	2	RCS Cold Leg Temperature (LOOP B)	50-750	Deg. F
		RCS Hot leg Temperature (LOOP B)	50-750	Deg. F
4. 1-C03 (Main Control Board)	2	S/G "A" Wide-Range Water Level	0-520	Inches
		S/G "A" Wide-Range Water Level	0-520	Inches
5. 1-C03 (Main Control Board)	2	S/G "B" Wide-Range Water Level	0-520	Inches
		S/B "B" Wide-Range Water Level	0-520	Inches

Table 1 continued.

<u>Location</u>	<u>No. of Pens</u>	<u>Description/Application</u>	<u>Range</u>	<u>Units</u>
6. 1-C20 (ASIP)	1	Containment Wide-Range Pressure	-5 to 195	PSIG
7. 1-C20 (ASIP)	1	Containment Wide-Range Pressure	-5 to 195	PSIG
8. 1-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%
9. 1-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%
10. 1-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%
11. 1-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%
<u>UNIT 2</u>				
12. 2-C04 (Main Control Board)	3	RCS Wide-Range Pressure (LOOP A)	0-3000	PSIG
		RCS Wide-Range Pressure (LOOP A)	0-3000	PSIG
		RCS Wide-Range Pressure (LOOP B)	0-3000	PSIG
13. 2-C04 (Main Control Board)	2	RCS Cold Leg Temperature (LOOP A)	50-750	Deg. F
		RCS Hot Leg Temperature (LOOP A)	50-750	Deg. F

Table 1 continued.

<u>Location</u>	<u>No. of Pens</u>	<u>Description/Application</u>	<u>Range</u>	<u>Units</u>
14. 2-C04 (Main Control Board)	2	RCS Cold Leg Temperature (LOOP B)	50-750	Deg. F
		RCS Hot Leg Temperature (LOOP B)	50-750	Deg. F
15. 2-C03 (Main Control Board)	2	S/G "A" Wide-Range Water Level	0-520	Inches
		S/G "A" Wide-Range Water Level	0-520	Inches
16. 2-C03 (Main Control Board)	2	S/G "B" Wide-Range Water Level	0-520	Inches
17. 2-C20 (ASIP)	1	Containment Wide-Range Pressure	-5 to 195	PSIG
18. 2-C20 (ASIP)	1	Containment Wide-Range Pressure	-5 to 195	PSIG
19. 2-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%
20. 2-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%
21. 2-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%
22. 2-C20 (ASIP)	2	(Computer Trend Recorder)*	0-100	%
		(Computer Trend Recorder)*	0-100	%

*These recorders will be used to trend computer-stored data when the new computer system is installed. In the interim, selected core exit thermocouple average temperature, RCS subcooling based on wide-range loop or selected core exit thermocouple average temperature, and wide and narrow range compensated reactor vessel level for each unit will be displayed using these recorders.

TABLE 2

ASIP (1C20 AND 2C20) INSTRUMENTATION AND RANGES

<u>Indicator</u>	<u>Unit</u>	<u>Range</u>	<u>Engineering Units</u>
1. Containment High-Range Radiation	1 & 2	1-10 ⁸	R/HR
2. RCS Wide-Range Pressure	1 & 2	0-3000	PSIG
3. RCS Cold Leg Wide-Range Temperature	1 & 2	50-750	Deg. F
4. RCS Hot Leg Wide-Range Temperature	1 & 2	50-750	Deg. F
5. Steam Generator Wide-Range Level	1 & 2	0-520	Inches
6. Reactor Vessel Wide-Range Water Level	1 & 2	0-125	Feet
7. Reactor Vessel Narrow-Range Water Level	1 & 2	0-45	Feet
8. RCS Gas Vent Pressure	1 & 2	0-3000	PSIG
9. Containment Wide-Range Pressure	1 & 2	-5 to 195	PSIG
10. Containment Sump "A" Level	1 & 2	0-90	Inches
11. Containment Sump "B" Level	1 & 2	0-90	Inches
12. Containment Hydrogen Concentration	1 & 2	0-10	Percent
13. Containment Air Temperature	1 & 2	50-350	Deg. F
14. Containment Sump "B" Temperature	1 & 2	50-350	Deg. F
15. 120 VAC Instrument Bus Voltage	2	0-150	AC Volts
16. 125 VDC Instrument Bus Voltage	2	0-150	DC Volts
17. Battery Charge-Discharge Amps	2	100-0-1000	DC Amps

TABLE 3

UNIT 1 ASIP (1C20) ITEM IDENTIFICATION LIST

(Indicators Unless Noted)

<u>Number On Drawing</u>	<u>Identification</u>
1A-B	Reactor Vessel Head Vent Valve Controls
1C-D	Pressurizer Vent Valve Controls
1E	Combined RCS Vent to PRT - Vent Valve Control
1F	Combined RCS Vent to Containment - Vent Valve Control
2	Status Indicator Lights (Green)
3	Status Indicator Lights (Red)
4	Status Indicator Lights (White)
5	Status Indicator Lights (Yellow)
6A-B	RCS Hot Leg Temperature - Loop A
6C-D	RCS Hot Leg Temperature - Loop B
7A-B	RCS Cold Leg Temperature - Loop A
7C-D	RCS Cold Leg Temperature - Loop B
8A	RCS Wide-Range Pressure - Loop A
8B-C	RCS Wide-Range Pressure - Loop B
9A-C	Containment High-Range Radiation
10A-B	Wide-Range Containment Pressure
11A-D	Containment Hydrogen Concentration
12	RCS Gas Vent Header Pressure
13A-B	Reactor Vessel Wide-Range Level
14A-B	Reactor Vessel Narrow-Range Level
15A-B	Containment Sump B Level
16A-B	Containment Sump A Level
17A	Subcooling Margin - Loop A
17B	Subcooling Margin - Loop B
18	Radiation Monitoring System Alarm Acknowledge Pushbutton
20A-D	Annunciator Panels
23-26	Annunciator Acknowledge Pushbuttons
27A-B	Plant Process Computer System Displays (Later)
31A-B	Subcooling Monitor RTD - T/C Selector Switches

Table 3 continued.

<u>Number On Drawing</u>	<u>Identification</u>
32A	Containment Temperature - 66-Foot Elevation
32B	Containment Temperature - 46-Foot Elevation
34A-B	Containment Sump Temperature - 11-Foot Elevation
35A-B	Steam Generator A Wide-Range Level
35C-D	Steam Generator B Wide-Range Level
38	LED Matrix Computer Display Panel (Later)
40A-B	Containment Wide-Range Pressure Recorders
41A-D	Computer Trend Recorders
48	1RE-211/212 - Sample Exhaust Switch
49	1RE-211/212 - Mode Select Switch
50	1RE-211/212 - Sample Pump Switch
51	1RE-211/212 - Containment Vent Switch
52-53	Pressurizer Safety Valve Position Indicators

TABLE 4

UNIT 2 ASIP (2C20) ITEM IDENTIFICATION LIST

(Indicators Unless Noted)

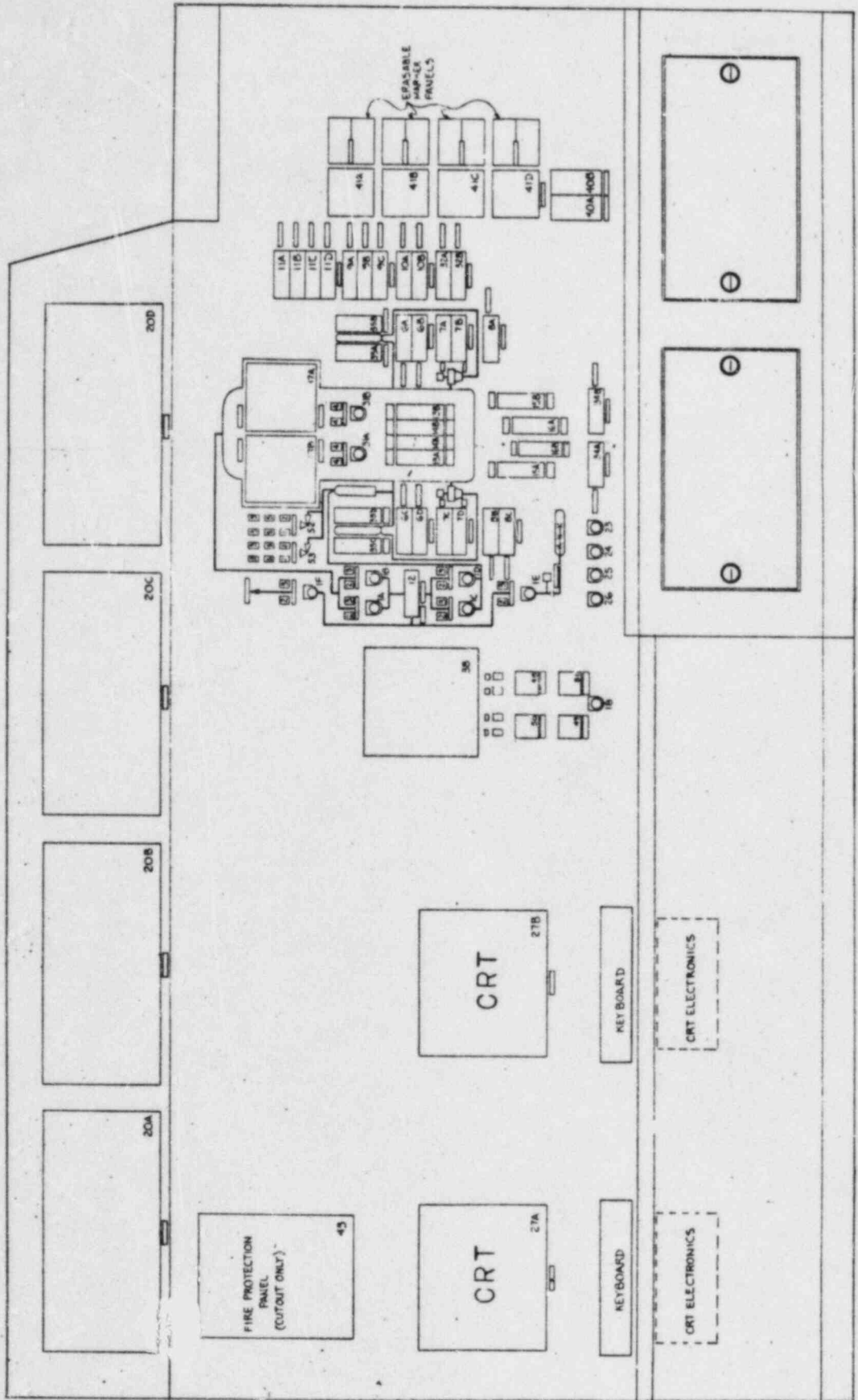
<u>Number On Drawing</u>	<u>Identification</u>
1A-B	Reactor Vessel Head Vent Valve Controls
1C-D	Pressurizer Vent Valve Controls
1E	Combined RCS Vent to PRT - Vent Valve Control
1F	Combined RCS Vent to Containment - Vent Valve Control
2	Status Indicator Lights (Green)
3	Status Indicator Lights (Red)
4	Status Indicator Lights (White)
5	Status Indicator Lights (Yellow)
6A-H	Battery Charger Feeder Control Switch
7A-B	RCS Hot Leg Temperature - Loop A
7C-D	RCS Hot Leg Temperature - Loop B
8A-B	RCS Cold Leg Temperature - Loop A
8C-D	RCS Cold Leg Temperature - Loop B
9A	Wide-Range RCS Pressure - Loop A
9B-C	Wide-Range RCS Pressure - Loop B
10A-C	Containment High-Range Radiation
11A-B	Containment Wide-Range Pressure
12A-D	Containment Hydrogen Concentration
13	RCS Gas Vent Header Pressure
14A-B	Reactor Vessel Wide-Range Level
15A-B	Reactor Vessel Narrow-Range Level
16A-B	Containment Sump B Level
17A-B	Containment Sump A Level
18A-R	120 VAC Instrument Bus Voltmeters
19A-D	125 VDC Bus Voltmeters
20A-D	Battery Charge/Discharge Ammeters
21A	Subcooling Margin - Loop A
21B	Subcooling Margin - Loop B
24A-D	Annunciator Panels
27-30	Annunciator Acknowledge Pushbuttons

Table 4 continued.

Number On Drawing

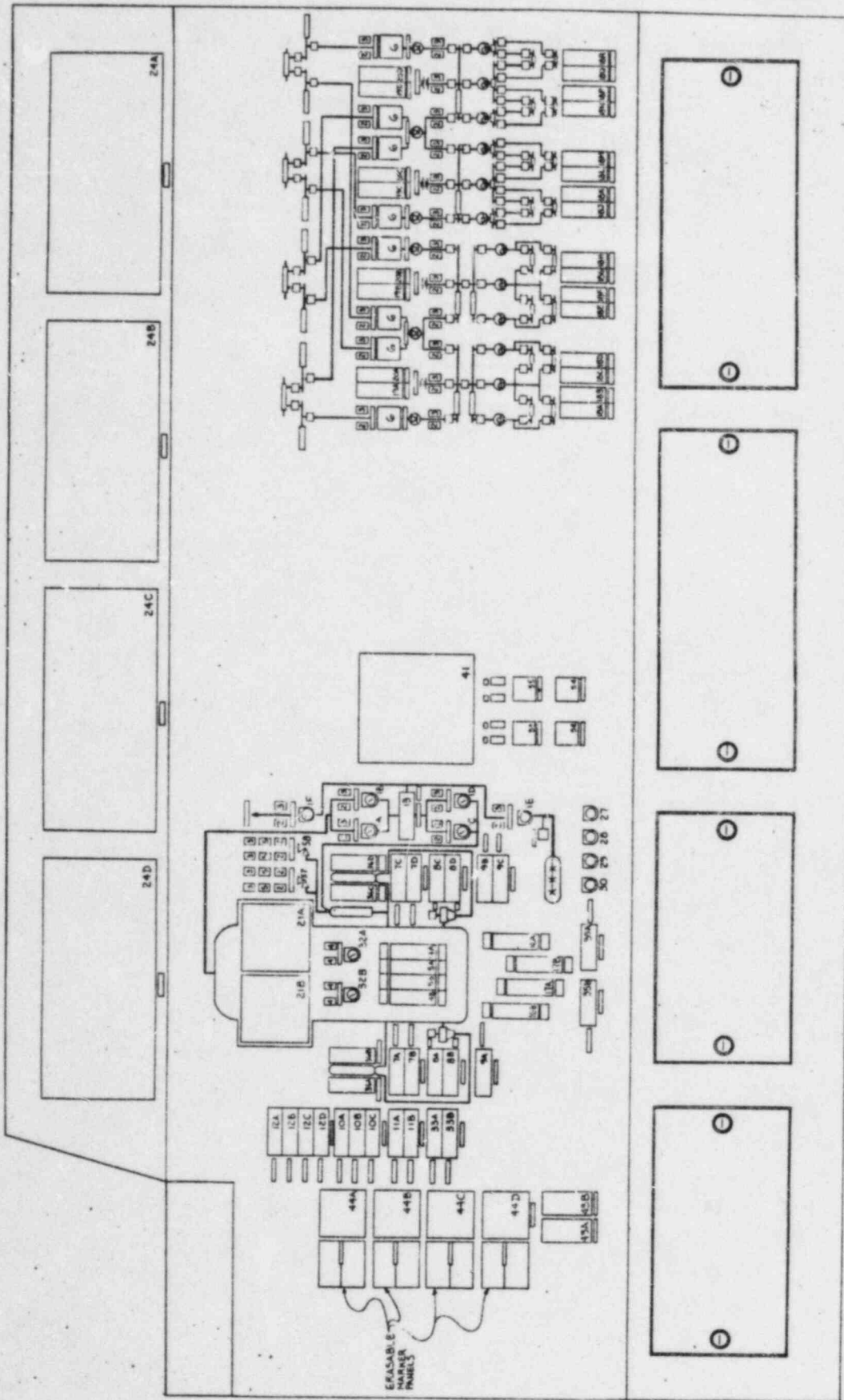
Identification

32A-B	Subcooling Monitor RTD-T/C Selector Switches
33A	Containment Temperature - 66-Foot Elevation
33B	Containment Temperature - 46-Foot Elevation
35A-B	Containment Sump B Temperature - 11-Foot Elevation
36A-B	Steam Generator A Wide-Range Temperature
36C-D	Steam Generator B Wide-Range Temperature
41	LED Matrix Computer Display Panel (Later)
43A-B	Wide-Range Containment Pressure Recorders
44A-D	Computer Trend Recorders
53	2RE-211/212 - Sample Exhaust Switch
54	2RE-211/212 - Mode Select Switch
55	2RE-211/212 - Sample Pump Switch
56	2RE-211/212 - Containment Vent Switch
57-58	Pressurizer Safety Valve Position Indicators



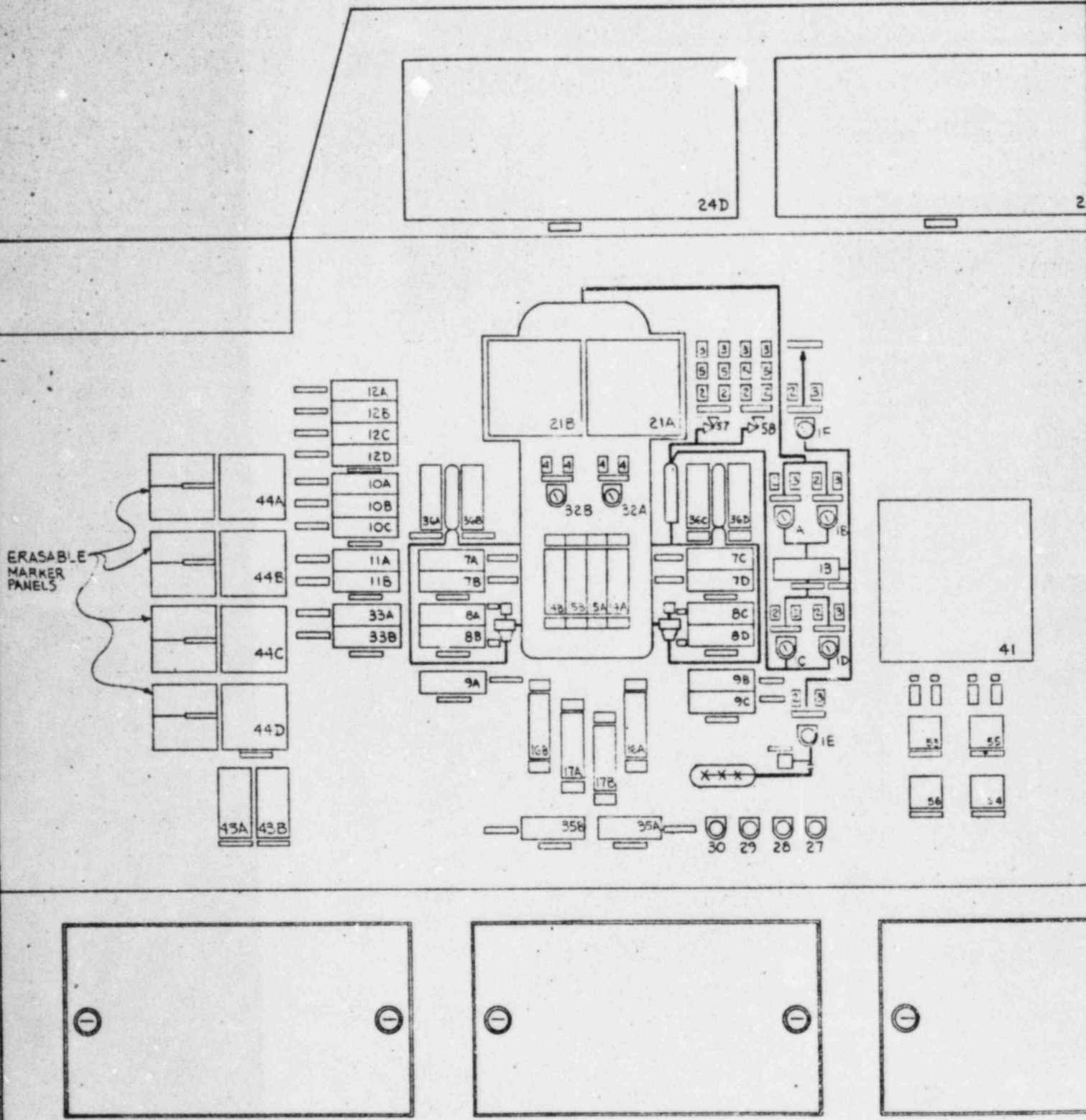
UNIT 1
 AUXILIARY SAFETY INSTRUMENTATION
 PANEL (1-C20)

FRONT ELEVATION
 (SCALE-1/4"=1'-0")

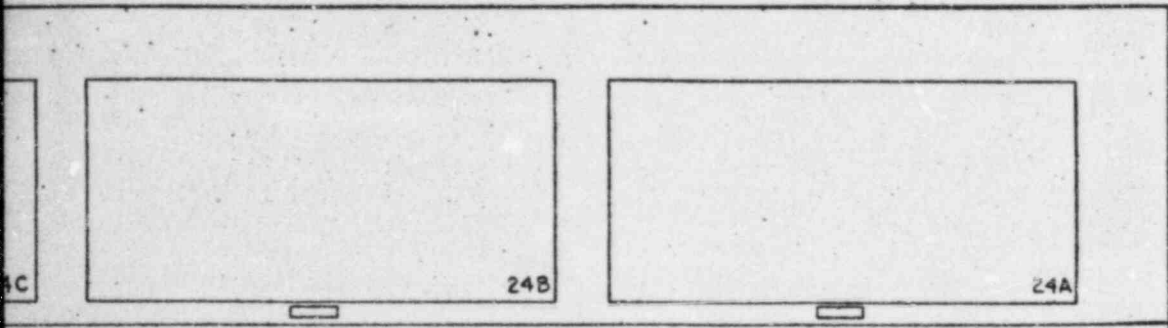


FRONT ELEVATION
(SCALE 1/4" = 1'-0")

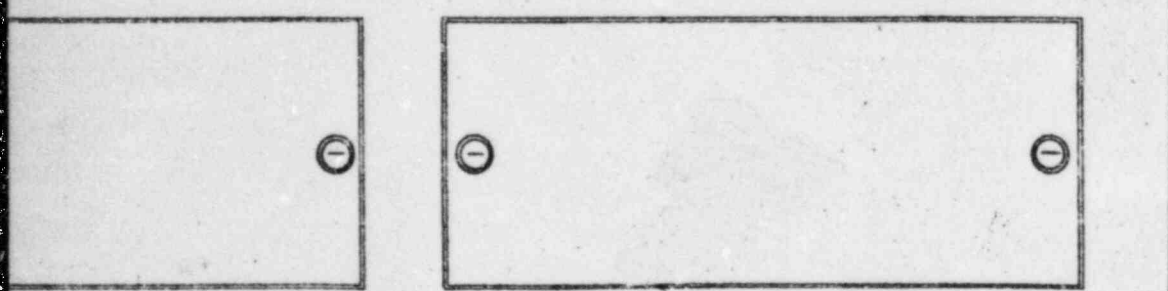
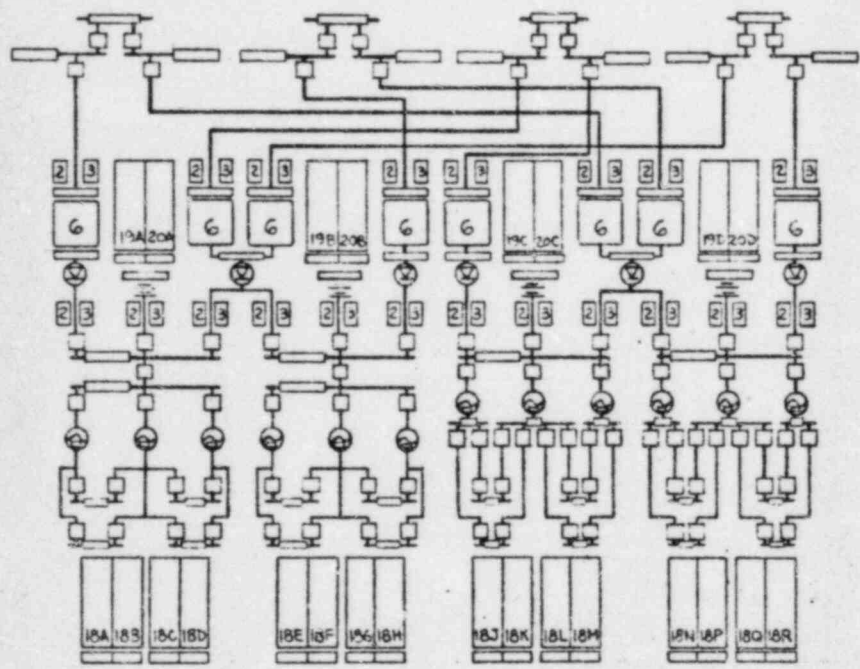
UNIT 2
AUXILIARY SAFETY INSTRUMENTATION
PANEL (2-C20)



FRONT ELEVATION
 (SCALE 1/2" = 1'-0")



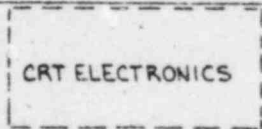
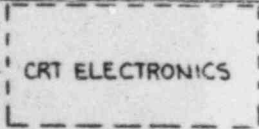
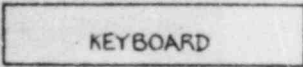
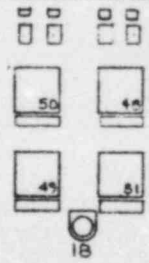
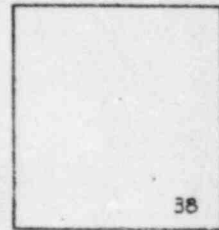
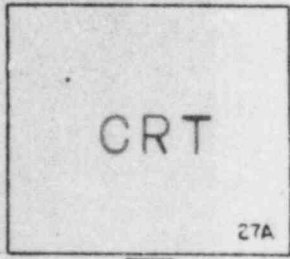
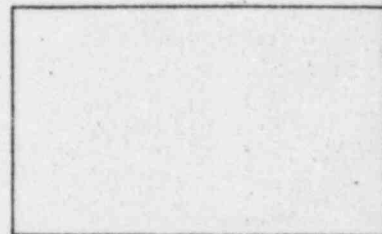
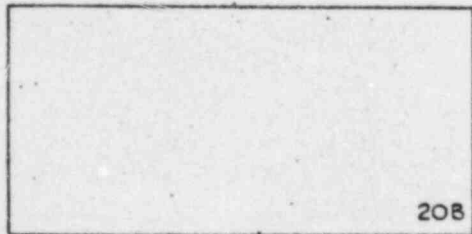
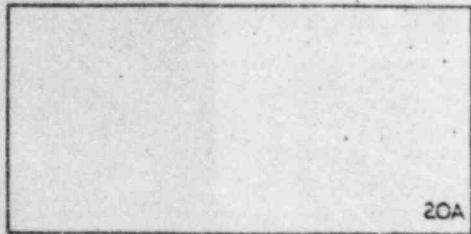
Also Available On
Aperture Card



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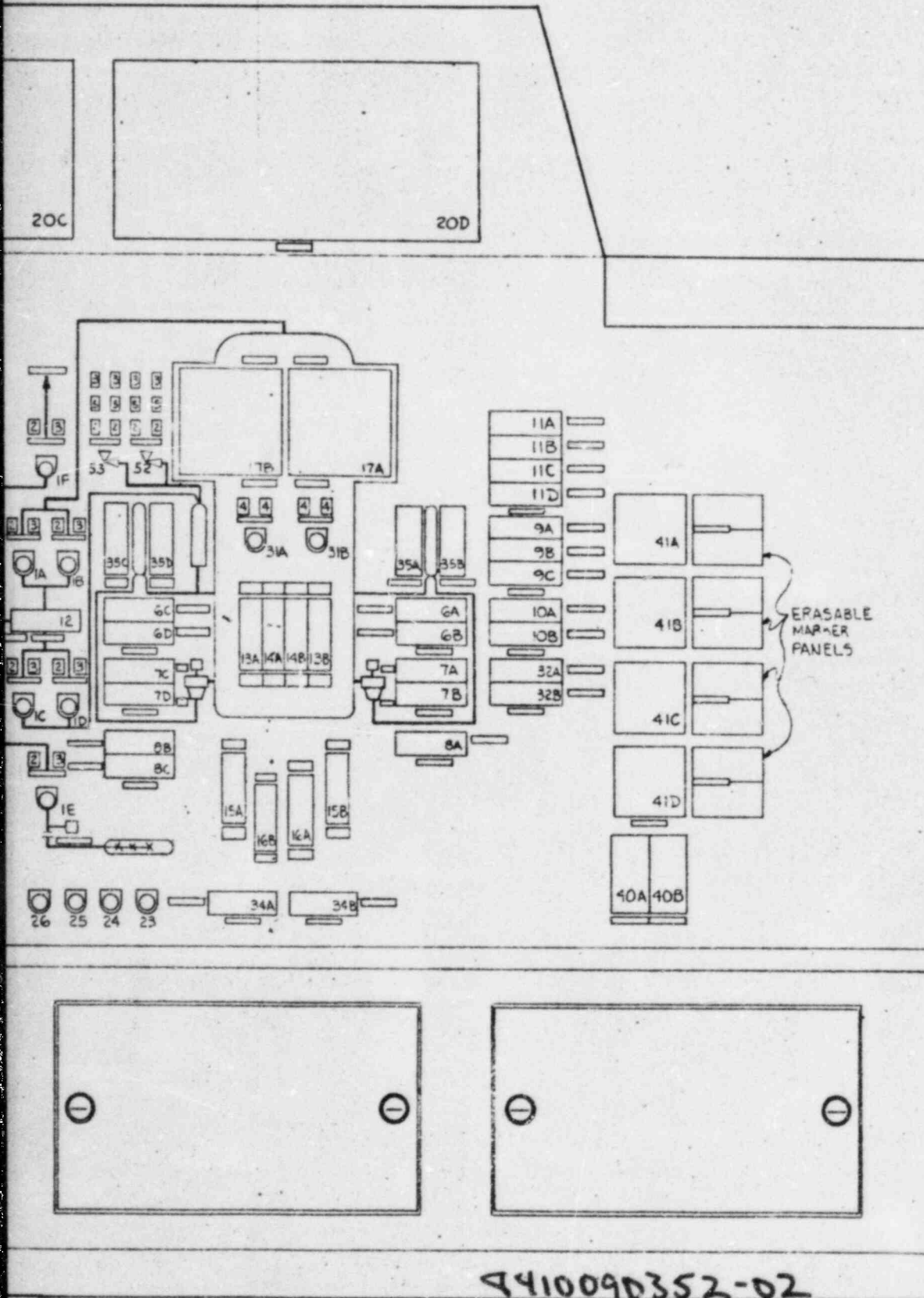
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UNIT 2
AUXILIARY SAFETY INSTRUMENTATION
PANEL (2-C20)



FRONT ELEVATION
(SCALE - 1/2" = 1'-0")

Also Available On
Aperture Card



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UNIT 1
AUXILIARY SAFETY INSTRUMENTATION
PANEL (1-C20)