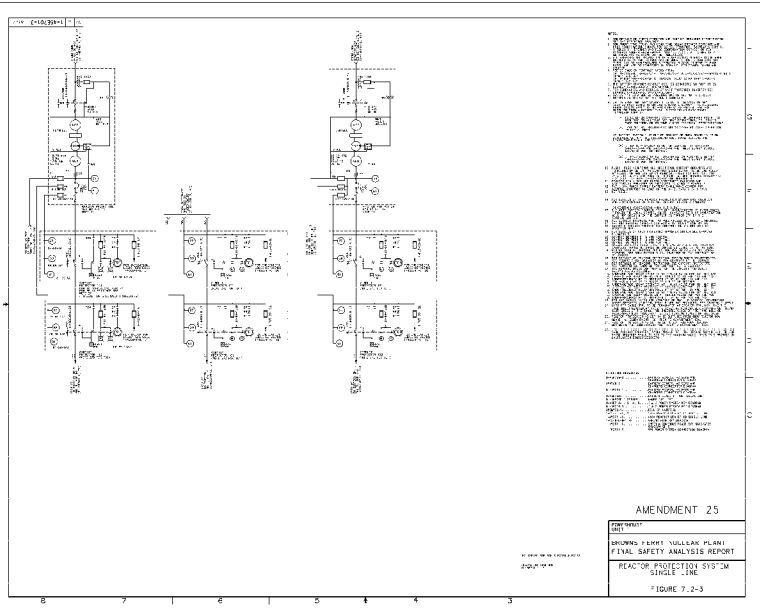


AMENDMENT 21

POWERHOUSE
UNIT 2
BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT
REACTOR PROTECTION SYSTEM
AUXILIARY INSTRUMENT ROOM PANEL
FIGURE 7-2-2



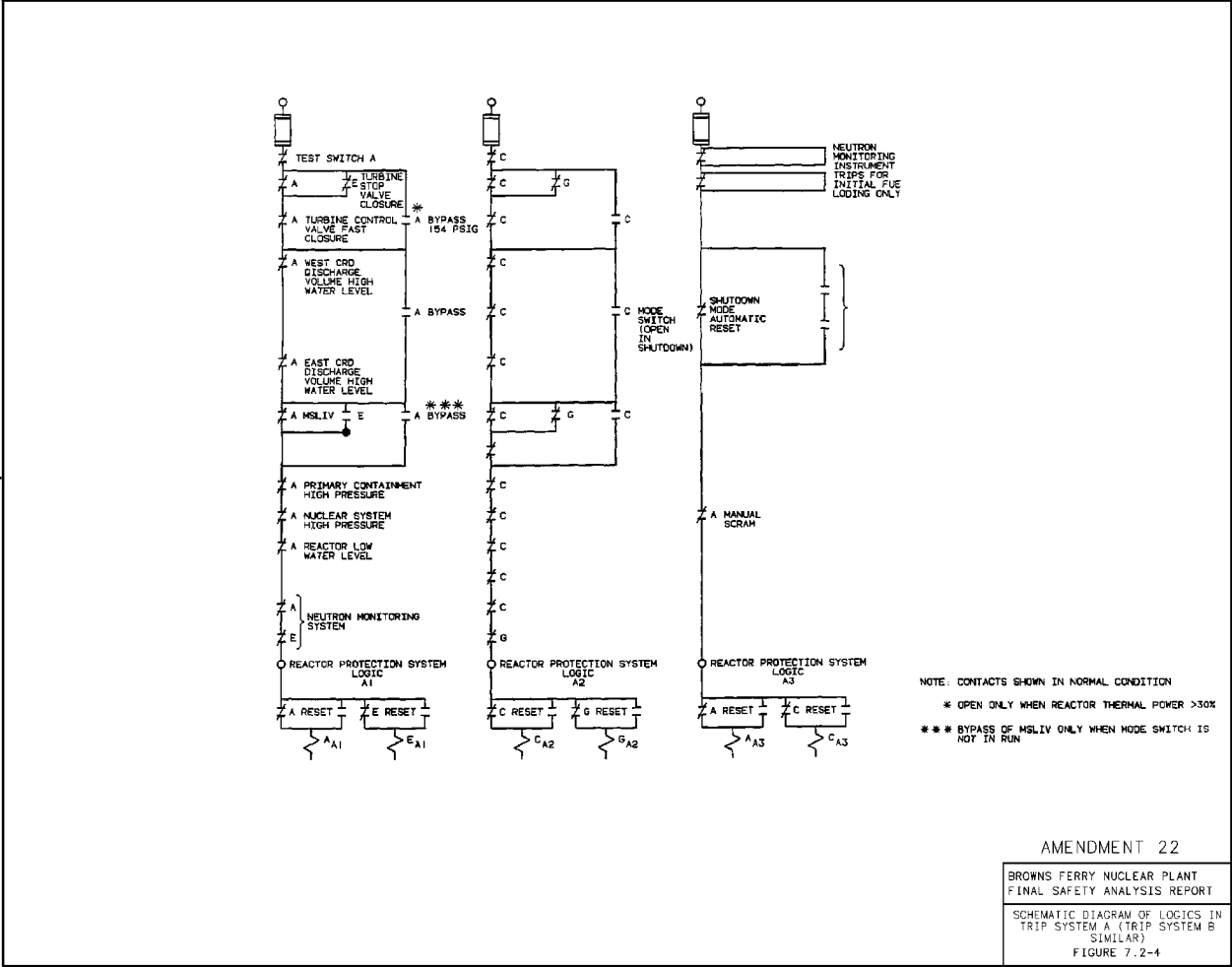
1. This diagram shows the reactor protection system (RPS) for the Brunnen Ferry Nuclear Plant. The system is designed to protect the reactor from exceeding safe operating limits. It consists of several channels, each with its own set of sensors and logic. The channels are interconnected to provide a high level of redundancy and reliability. The diagram shows the electrical connections between the sensors, relays, and control logic. The system is designed to trip the reactor in the event of a fault or abnormal condition. The diagram is a single-line representation of the system, showing the electrical connections between the various components.

AMENDMENT 25
 BRUNNEN FERRY NUCLEAR PLANT
 FINAL SAFETY ANALYSIS REPORT
 REACTOR PROTECTION SYSTEM
 SINGLE LINE
 FIGURE 7.2-3

BFN-22

Figures 7.2-3a through 7.2-3l
(Deleted by Amendment 22)

|



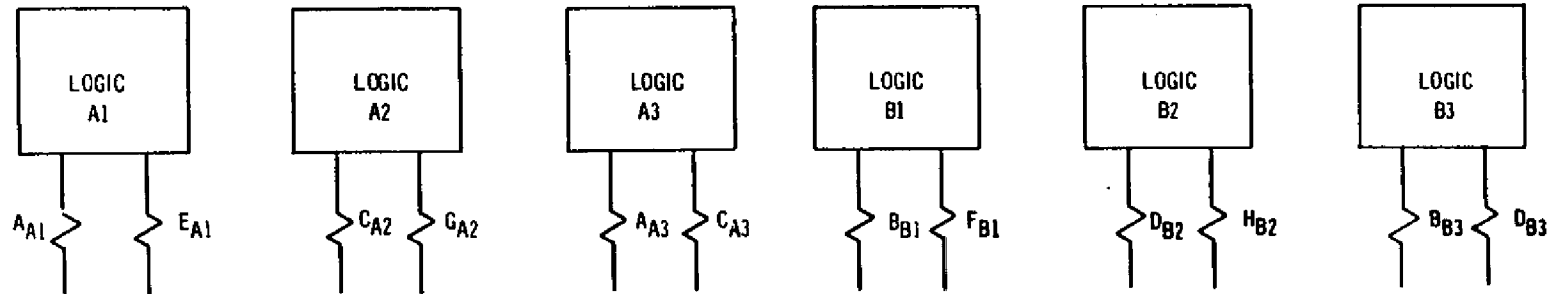
AMENDMENT 22

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

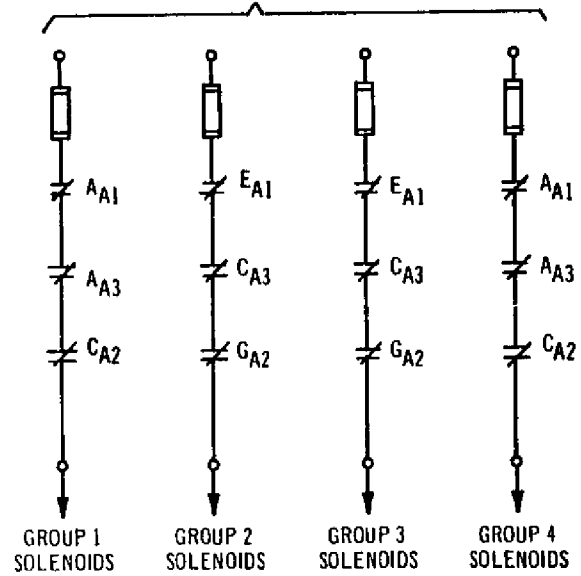
SCHEMATIC DIAGRAM OF LOGICS IN
TRIP SYSTEM A (TRIP SYSTEM B
SIMILAR)

FIGURE 7.2-4

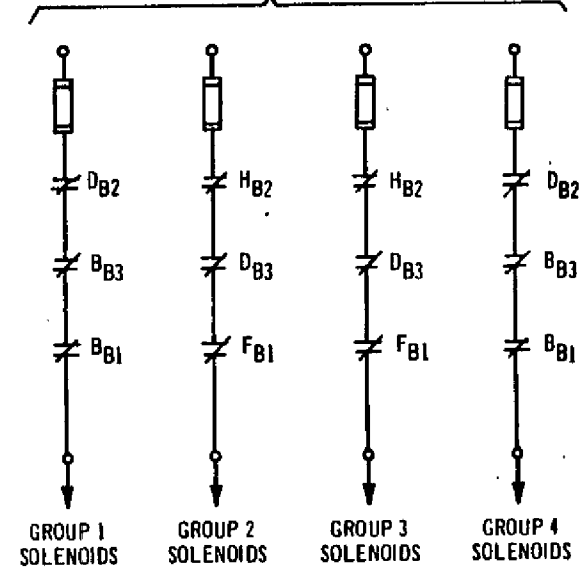
ACTUATORS



ACTUATOR LOGICS ASSOCIATED WITH TRIP SYSTEM A



ACTUATOR LOGICS ASSOCIATED WITH TRIP SYSTEM B

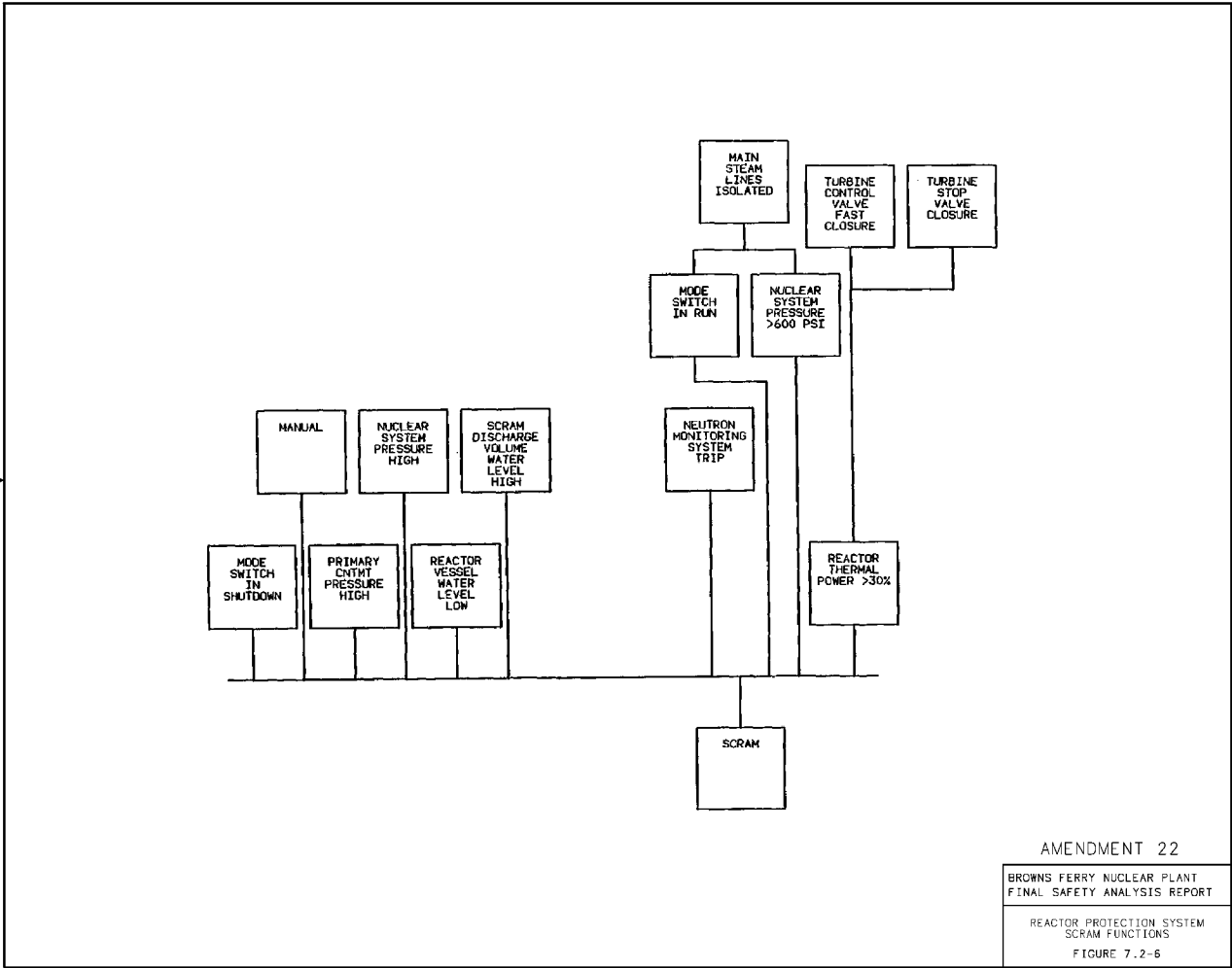


NOTE. CONTACTS SHOWN IN NORMAL CONDITION

AMENDMENT 16

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

Schematic Diagram of Actuators
and Actuator Logics
FIGURE 7.2.5



AMENDMENT 22

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

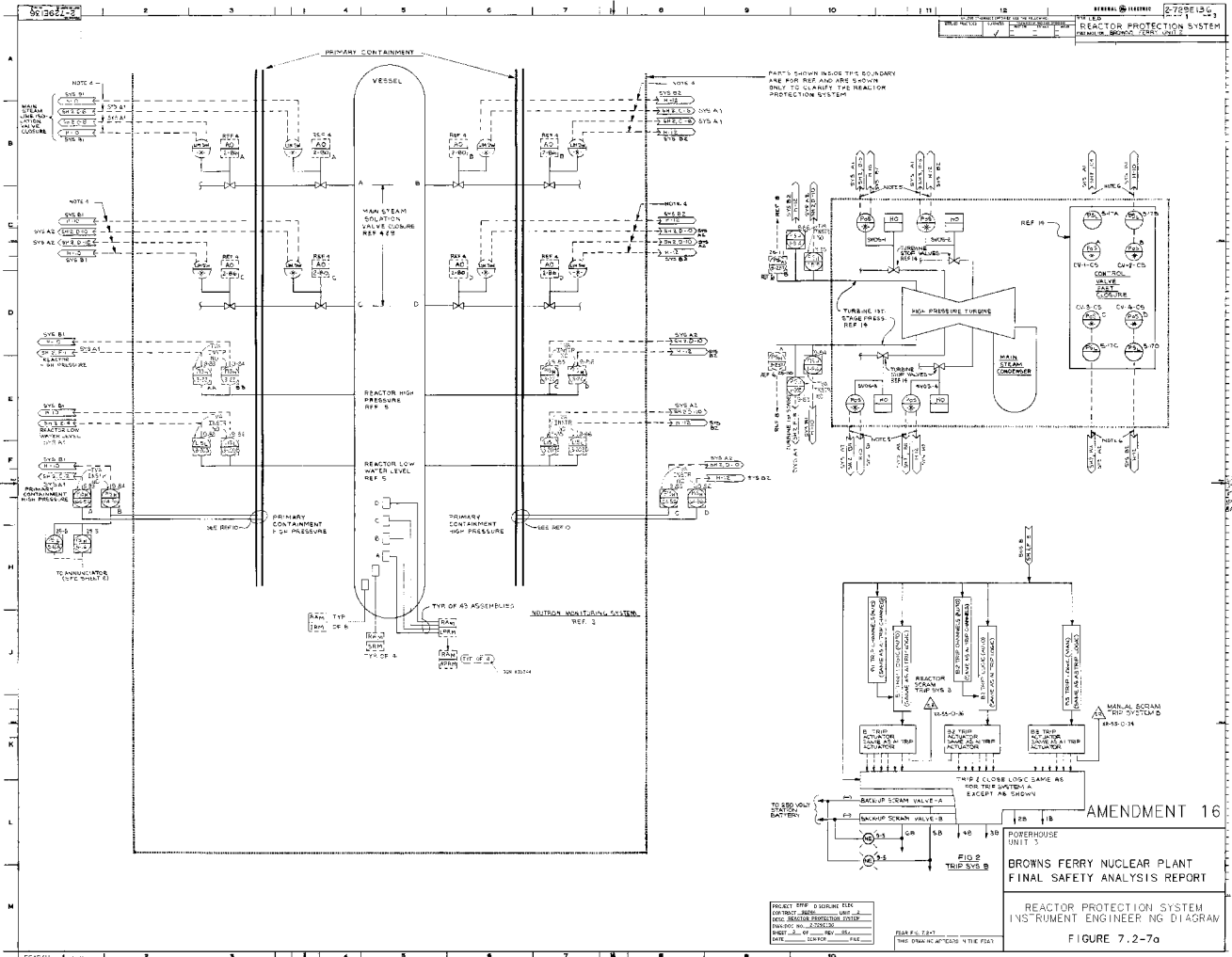
REACTOR PROTECTION SYSTEM
SCRAM FUNCTIONS

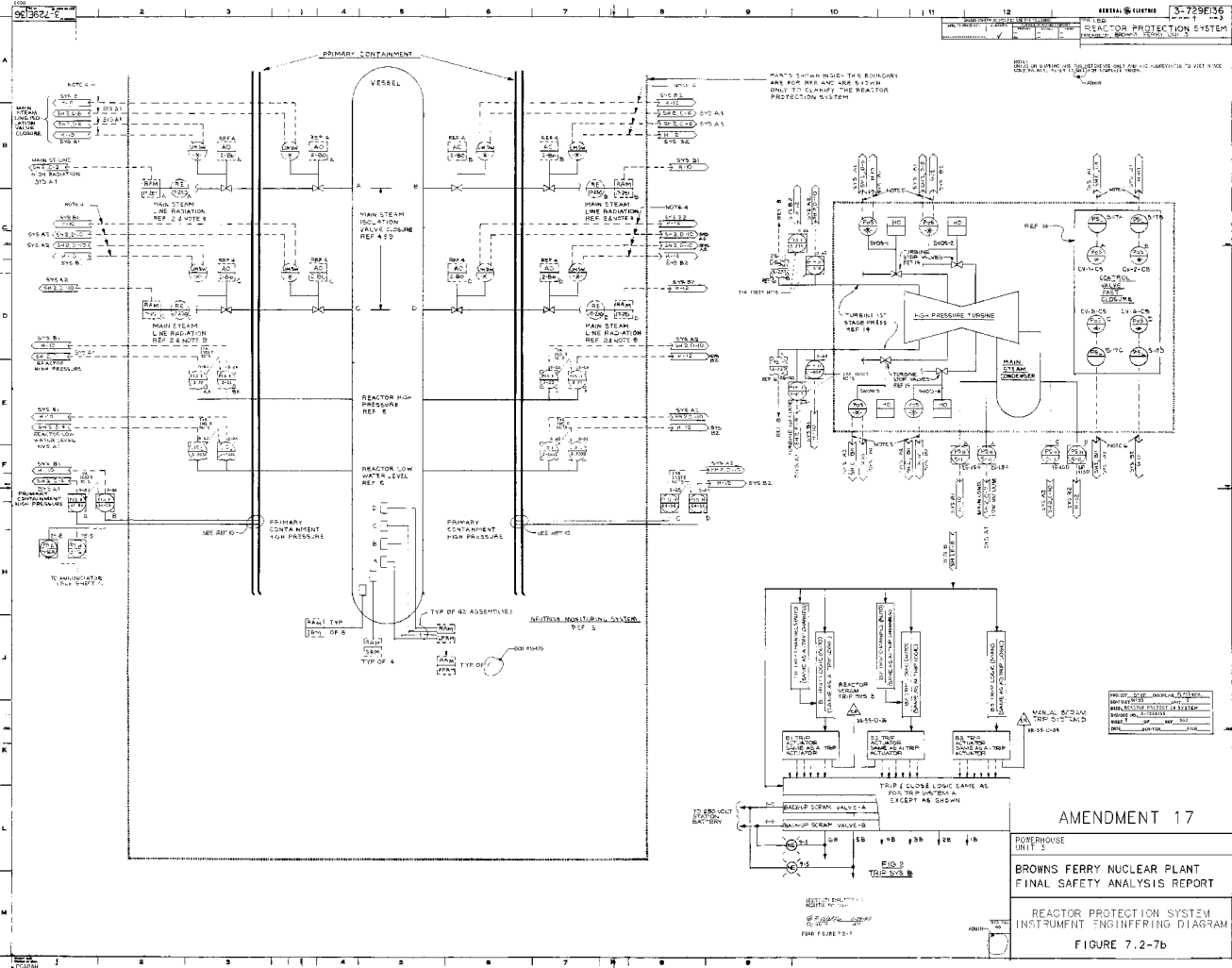
FIGURE 7.2-6

BFN-16

Figure 7.2-7

Deleted by Amendment 13.

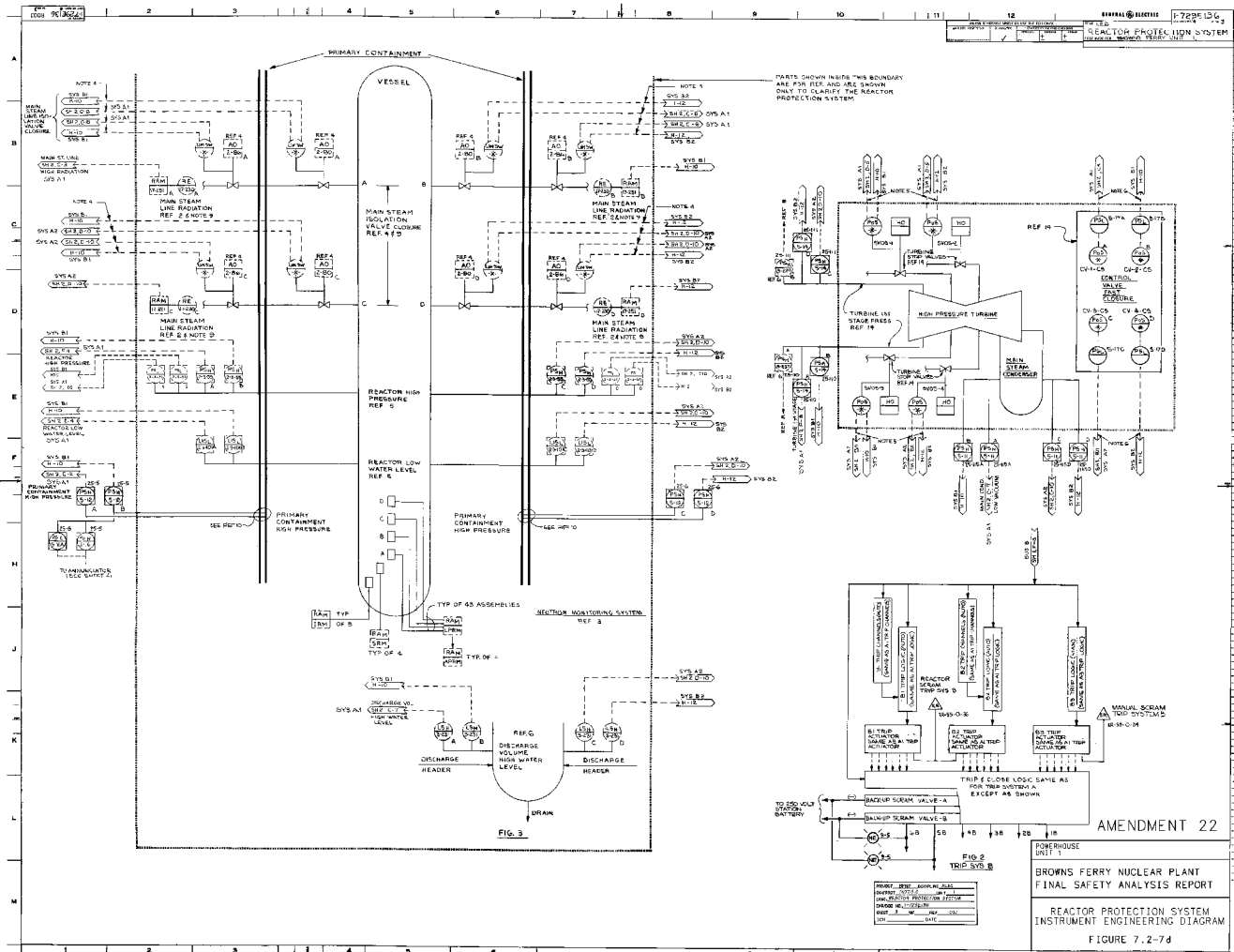


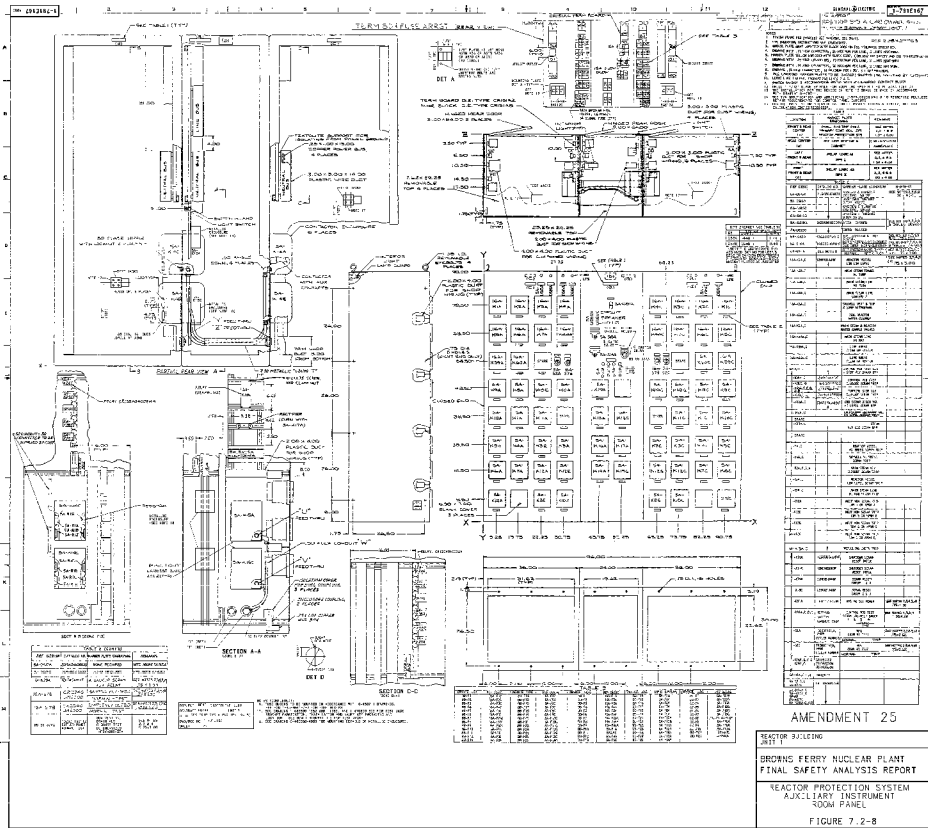


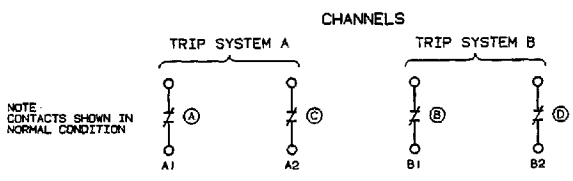
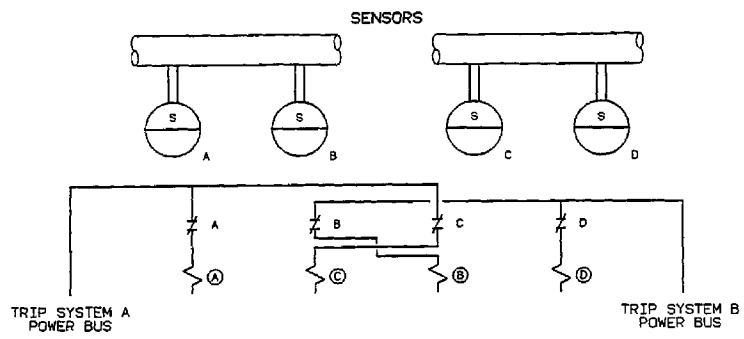
AMENDMENT 17

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

REACTOR PROTECTION SYSTEM
INSTRUMENT ENGINEERING DIAGRAM
FIGURE 7.2-7b





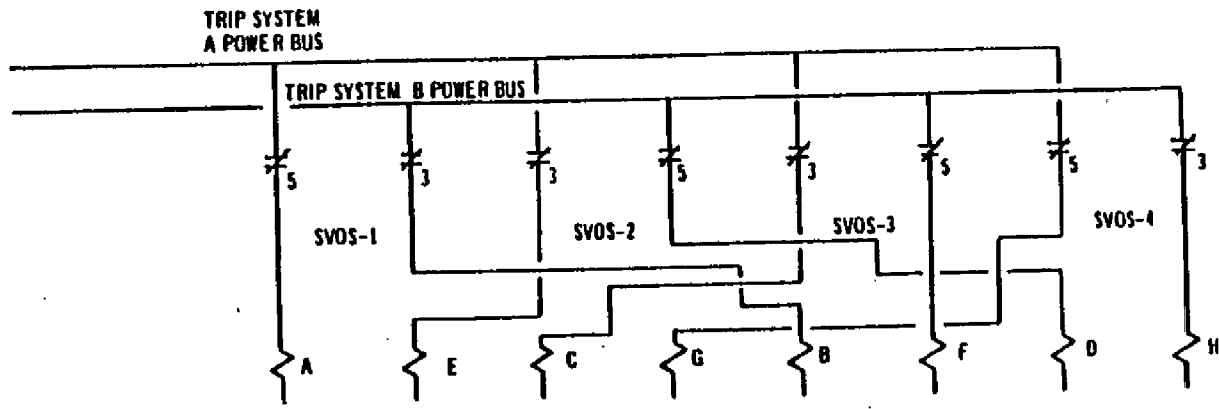


NOTE
CONTACTS SHOWN IN
NORMAL CONDITION

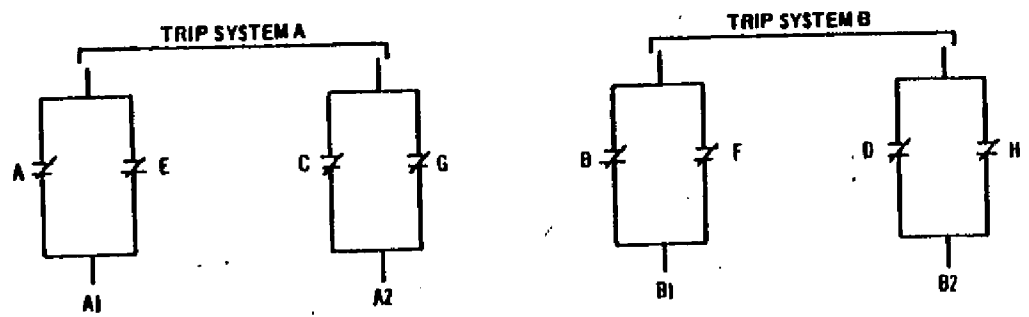
REACTOR PROTECTION SYSTEM LOGICS
 TYPICAL CONFIGURATION FOR:
 SCRAM DISCHARGE VOLUME HIGH WATER LEVEL
 TURBINE CONTROL VALVE FAST CLOSURE
 REACTOR VESSEL LOW WATER LEVEL
 PRIMARY CONTAINMENT HIGH PRESSURE
 NUCLEAR SYSTEM HIGH PRESSURE

AMENDMENT 22

BROWNS FERRY NUCLEAR PLANT FINAL SAFETY ANALYSIS REPORT
TYPICAL ARRANGEMENT OF CHANNELS AND LOGICS
FIGURE 7.2-10



TURBINE STOP VALVE CLOSURE CHANNELS

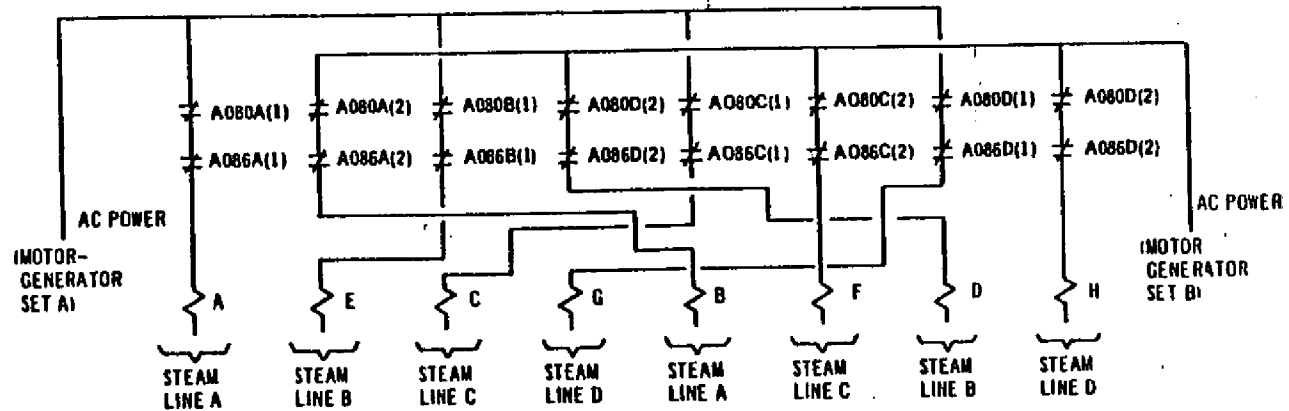


REACTOR PROTECTION SYSTEM LOGICS

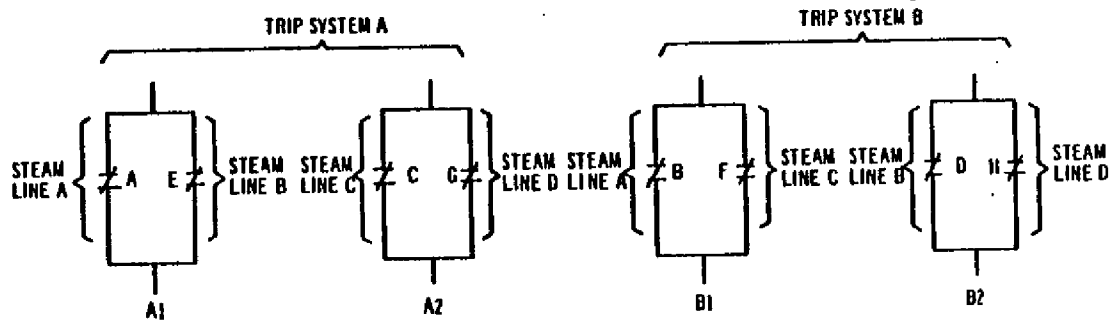
NOTE: CONTACTS SHOWN IN NORMAL CONDITION (STOP VALVES >90% OPEN)

Browns Ferry Nuclear Plant
 Final Safety Analysis Report
 Turbine Stop Valve Closure Schem
 Figure 7.2-11

AMENDMENT 16



MAIN STEAM LINE ISOLATION CHANNELS
 (SWITCH CONTACTS SHOWN IN POSITIONS WHEN ISOLATION VALVES MORE THAN 90% OPEN)



REACTOR PROTECTION SYSTEM LOGICS
 (CONTACTS SHOWN IN NORMAL CONDITION)

KEY: A080A - STEAM LINE A, INBOARD VALVE 1-14
 A086A - STEAM LINE A, OUTBOARD VALVE 1-15
 A080B - STEAM LINE B, INBOARD VALVE 1-26
 A086B - STEAM LINE B, OUTBOARD VALVE 1-27

A080C - STEAM LINE C, INBOARD VALVE 1-37
 A086C - STEAM LINE C, OUTBOARD VALVE 1-38
 A080D - STEAM LINE D, INBOARD VALVE 1-51
 A086D - STEAM LINE D, OUTBOARD VALVE 1-52

Browns Ferry Nuclear Plant
 Final Safety Analysis Report
 Typical Configuration for
 Main Steamline Isolation Schem
 FIGURE 7.2-12

AMENDMENT 16

BFN-16

Figure 7-2-13

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