



PSEG

Public Service
Electric and Gas
Company

80 Park Plaza, Newark, NJ 07101 / 201 430-8217

MAILING ADDRESS / P.O. Box 570, Newark, NJ 07101

Robert L. Mittl General Manager
Nuclear Assurance and Regulation

July 15, 1985

Director of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
7920 Norfolk Avenue
Bethesda, MD 20814

Attention: Mr. Walter Butler, Chief
Licensing Branch 2
Division of Licensing

Gentlemen:

HOPE CREEK GENERATING STATION
DOCKET NO. 50-354
NRC GENERIC LETTER 83-28
REQUEST FOR INFORMATION

Pursuant to the request of D. Wagner of NRC, Public Service Electric and Gas Company submits the attached information for review. This information includes preliminary attachments 3, 4, and 5 to OP-AP.22-101(Q), "Post Reactor Scram/ECCS Actuation Review and Approval Requirements", and final procedures SA-AP.22-002(Q), "Station Organization and Operating Practices", and SA-AP.22-004(Q), "Station Operational Review Committee" (See attachments).

These items are listed in PSEG's response to NRC Generic Letter 83-28, Section 1.1 which was submitted in a letter from R. L. Mittl, PSEG, to A. Schwencer, NRC, dated December 17, 1984.

Attachments 3 and 4 to OP-AP.22-101(Q) are submitted as preliminary and continue to be developed as additional required information becomes available. Attachment 5 to this procedure provides preliminary examples of two events which will initiate a reactor scram along with all equipment associated with safety related functions which are required to perform during each trip event. This attachment continues to be developed for all events. These attachments will be finalized by November 1, 1985. We are available to discuss any comments or questions at your earliest convenience.

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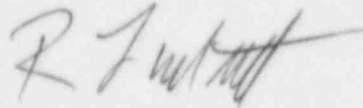
The Energy People

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Should you have any additional questions in this regard,
please contact us.

Very truly yours,



Attachments

C D. H. Wagner
USNRC Licensing Project Manager

A. R. Blough
USNRC Senior Resident Inspector

ATTACHMENT 3

Sequence of Events checklist Directions

Use this sequence of events checklist to record and verify that the scram initiation signal recorded in Attachment 1 Part B.1.b was the initiating event and carried to completion the trip of Reactor Protective Systems equipment and that proper steps were followed by the operator.

The information to be recorded on the Sequence of Event checklist is a direct transfer of information from the Sequence of Event Computer printout. Record the times for the start of the event and subsequent alarms as they occurred from the computer printout for Sequence of Events or Alarm Chronolog.

To perform this the following guidelines should be used.

- 1) From the Sequence of Events printout record the event date and time.
- 2) As determined previously from the Attachment 1 Part B.1.b record the SCRAM initiating signal.
- 3) Record the Sequence of Event time for each channel trip of the initiating parameter.
- 4) Record the Sequence of Event time for the subsequent Alarms listed on the alarm chronolog time.
- 5) Complete the Attachment 5 check sheet for the initiating event parameter recorded in 2) above.
- 6) Complete Attachment 5 Event 1 check sheet if the trip was initiated by a parameter other than Turbine Main Stop Valve closure.

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ATTACHMENT 3

SEQUENCE OF EVENTS CHECKLIST

Event Date _____ Time _____

Scram Initiated by: _____

Reactor Scram Signal Sequence Start Time

Initiating Parameter Channel Trip Sequence Time:

W	X	Y	Z
:	:	:	:
:	:	:	:

Subsequent Alarms	CRIDS Point ID	SOE Time
Reactor SCRAM W	D2131	:
Reactor SCRAM Y	D2132	:
Reactor SCRAM X	D2174	:
Reactor SCRAM Z	D2175	:
Backup SCRAM SV-F110A	LTR	:
Backup SCRAM SV-F110B	LTR	:

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ATTACHMENT 3 (cont'd)

Subsequent Alarms	CRIDS Point ID	SOE Time
SCRAM Discharge Volume Isolation Valve Closed HV-F010-C11	C1634 *	: :
SCRAM Discharge Volume Isolation Valve Closed HV-F180-C11	C1635 *	: :
SCRAM Discharge Volume Isolation Valve Closed HV-F011-C11	C1636 *	: :
SCRAM Discharge Volume Isolation Valve Closed HV-F181-C11	C1637 *	: :
SCRAM Discharge Volume Level W (Trip)	D2101	: :
SCRAM Discharge Volume Level X (Trip)	D2102	: :
SCRAM Discharge Volume Level Y (Trip)	D2103	: :
SCRAM Discharge Volume Level Z (Trip)	D2104	: :
Mode Switch in Shutdown	LTR	: :
Turb. Master Trip	D2015	: :

* These Digital Points are not on CRIDS they are NSSS computer points.

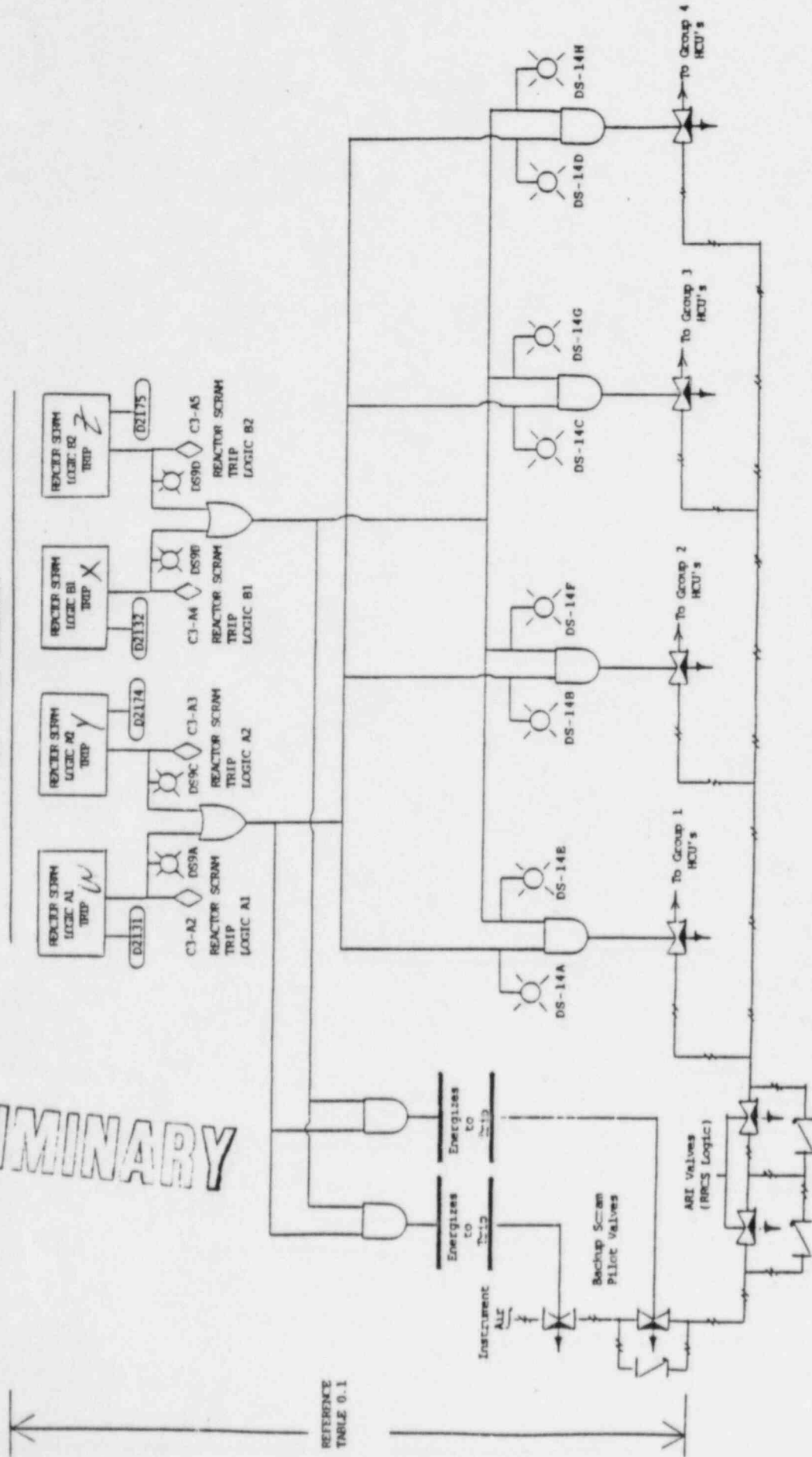
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FIGURE 0.1

SAFETY FUNCTION VERIFICATION POINTS FOR
REACTOR SCRAM CONTRACTORS



REFERENCE
TABLE 0.1

FOR INFORMATION ONLY

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ATTACHMENT 4

SEQUENCE OF EVENTS STANDARDS DIRECTIONS

Use this data sheet to record the value for time interval of trip from initiation time to actuation time equipment.

- 1) The Reactor Protection Systems initiation time from the channel W, X, Y and Z times recorded on Attachment 3. Record the sequence time for the first in of W or Y and X or Z.

FIRST IN SEQUENCE TIME					
W	OR	Y	X	OR	Z
:	:	:	:	:	:

- 2) The later in sequence of the two times from 1) above is the RPS initiation time.

RPS INITIATION	
:	:

- 3) The Interval time is calculated using the times indicated on the check sheet. An example is the calculations for the interval time for the Backup SCRAM SV-F110A. The formula is:

(Backup SCRAM SV-F110A SOE time)-(RPS Initiation time)=

Interval Time

Substitute the SOE time from Attachment 3 for the (Backup SCRAM SV-F110A SOE Time) and subtract the (RPS Initiation time) from 2 above to calculate the interval time.

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ATTACHMENT 4

SEQUENCE OF EVENTS STANDARDS

Scram Initiated by _____

Sequence Time Calculation	Interval Time	Expected Interval
(Reactor SCRAM W) - (Channel W Trip)		: :
(Reactor SCRAM Y) - (Channel Y Trip)		: :
(Reactor SCRAM X) - (Channel X Trip)		: :
(Reactor SCRAM Z) - (Channel Z Trip)		: :
(Backup SCRAM SV-F110A) - (RPS Initiation Time)		: :
(Backup SCRAM SV-F110B) - (RPS Initiation Time)		: :

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ATTACHMENT 4 (cont'd)

Sequence Time Calculation	Interval Time	Expected Interval
(SDV Isolation Valve HV-F010) - (RPS Initiation time)		: :
(SDV Isolation Valve HV-F180) - (RPS Initiation time)		: :
(SDV Isolation Valve HV-F011) - (RPS Initiation time)		: :
(SDV Isolation Valve HV-F181) - (RPS Initiation time)		: :
(SDV HIGH WATER LVL W) - (RPS Initiation time)		: :
(SDV HIGH WATER LVL X) - (RPS Initiation time)		: :
(SDV HIGH WATER LVL Y) - (RPS Initiation time)		: :
(SDV HIGH WATER LVL Z) - (RPS Initiation time)		: :
(Mode Switch inShutdown) - (RPS Initiation time)		: :
(Turb. Master Trip) - (RPS Initiation time)		: :

PRELIMINARY ONLY

ATTACHMENT 5

EVENT 1 CHECKLIST TURBINE MAIN STOP VALVE CLOSURE

CRIDS POINT ID	DESCRIPTION	STATUS	SOE TIME
D2007	MAIN STOP VALVE 1		
D2008	MAIN STOP VALVE 2		
D2009	MAIN STOP VALVE 3		
D2010	MAIN STOP VALVE 4		
D2133	TURBINE STOP VALVE CLOSURE SCRAM W		
D2134	TURBINE STOP VALVE CLOSURE SCRAM X		
D2135	TURBINE STOP VALVE CLOSURE SCRAM Y		
D2136	TURBINE STOP VALVE CLOSURE SCRAM Z		

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ATTACHMENT 5 (cont'd)

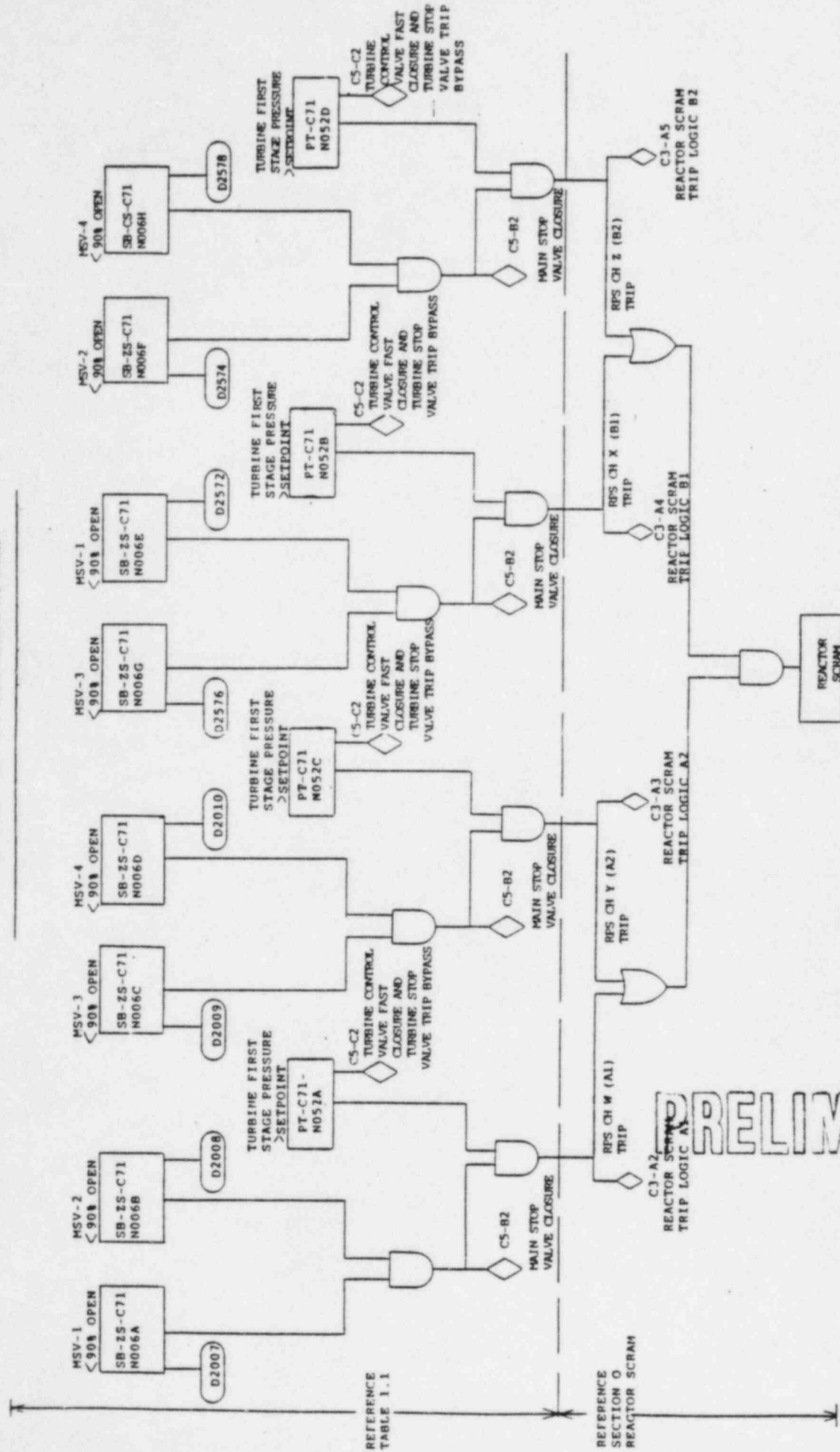
CRIDS POINT ID	DESCRIPTION	STATUS	SOE TIME
D2155	RECIRC PUMP TRIP SCRAM TRIP A		
D2156	RECIRC PUMP TRIP SCRAM TRIP B		
D2105	MSIV NOT OPEN SCRAM W		
D2106	MSIV NOT OPEN SCRAM X		
D2107	MSIV NOT OPEN SCRAM Y		
D2108	MSIV NOT OPEN SCRAM Z		

Check the following Plant Recorders to verify the functions listed occurred with the Trip Event.

Recorder	Function	Function Indicated	
		Yes	No
CORE FLOW B31-FR-R614	RECIRC PUMP TRIP		

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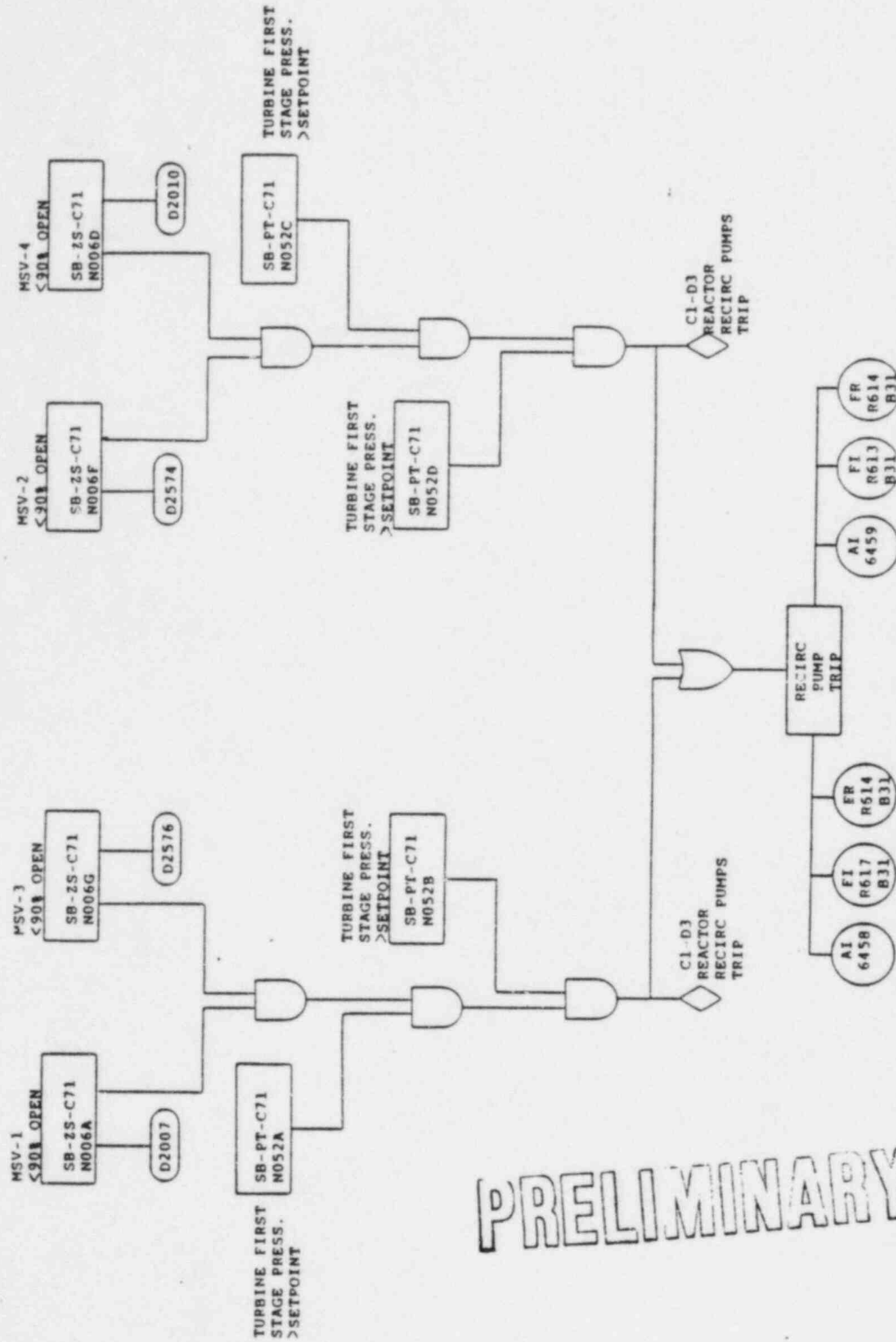
FIGURE 1.1
SAFETY FUNCTION VERIFICATION POINTS FOR
TURBINE MAIN STOP VALVE (MSV) CLOSURE RPS SCRAM



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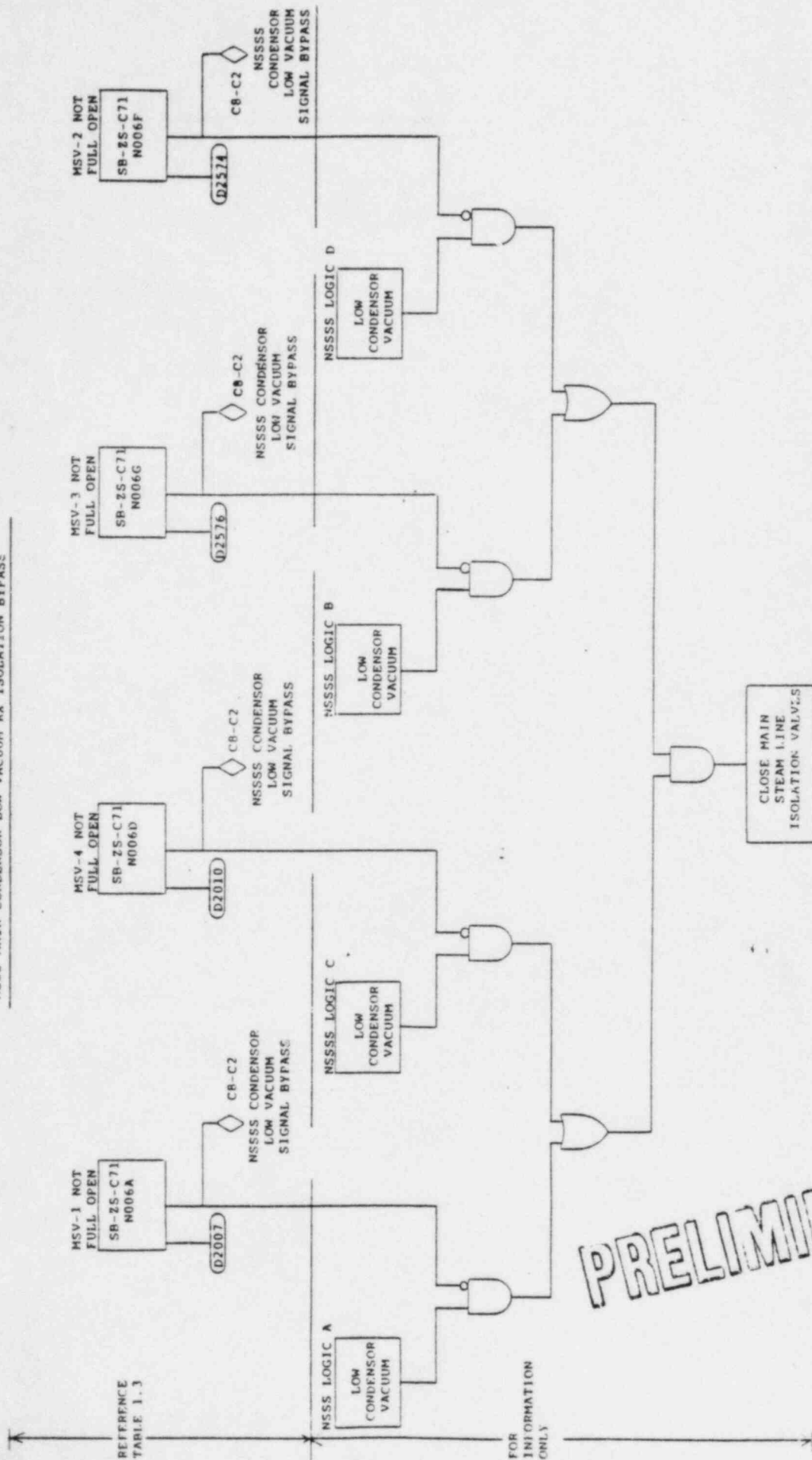
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FIGURE 1.2
SAFETY FUNCTION VERIFICATION POINTS FOR
RECIRCULATION PUMP TRIP LOGIC



REFERENCE
TABLE 1.2

FIGURE 1.3
SAFETY FUNCTION VERIFICATION POINTS FOR
TURBINE STOP VALVE CLOSURE
NSSS MAIN CONDENSOR LOW VACUUM RX ISOLATION BYPASS



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ATTACHMENT 5

EVENT 2 CHECKLIST TURBINE CONTROL TOP VALVE FAST CLOSURE

CRIDS POINT ID	DESCRIPTION	STATUS	SOE TIME
D2137	TURBINE CONTROL VALVE CLOSURE SCRAM W		
D2138	TURBINE CONTROL VALVE CLOSURE SCRAM X		
D2139	TURBINE CONTROL VALVE CLOSURE SCRAM Y		
D2140	TURBINE CONTROL VALVE CLOSURE SCRAM Z		
D2155	RECIRC PUMP TRIP SCRAM TRIP A		
D2156	RECIRC PUMP TRIP SCRAM TRIP B		
D2105	MSIV NOT OPEN SCRAM W		
D2106	MSIV NOT OPEN SCRAM X		
D2107	MSIV NOT OPEN SCRAM Y		
D2108	MSIV NOT OPEN SCRAM Z		

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ATTACHMENT 5 (cont'd)

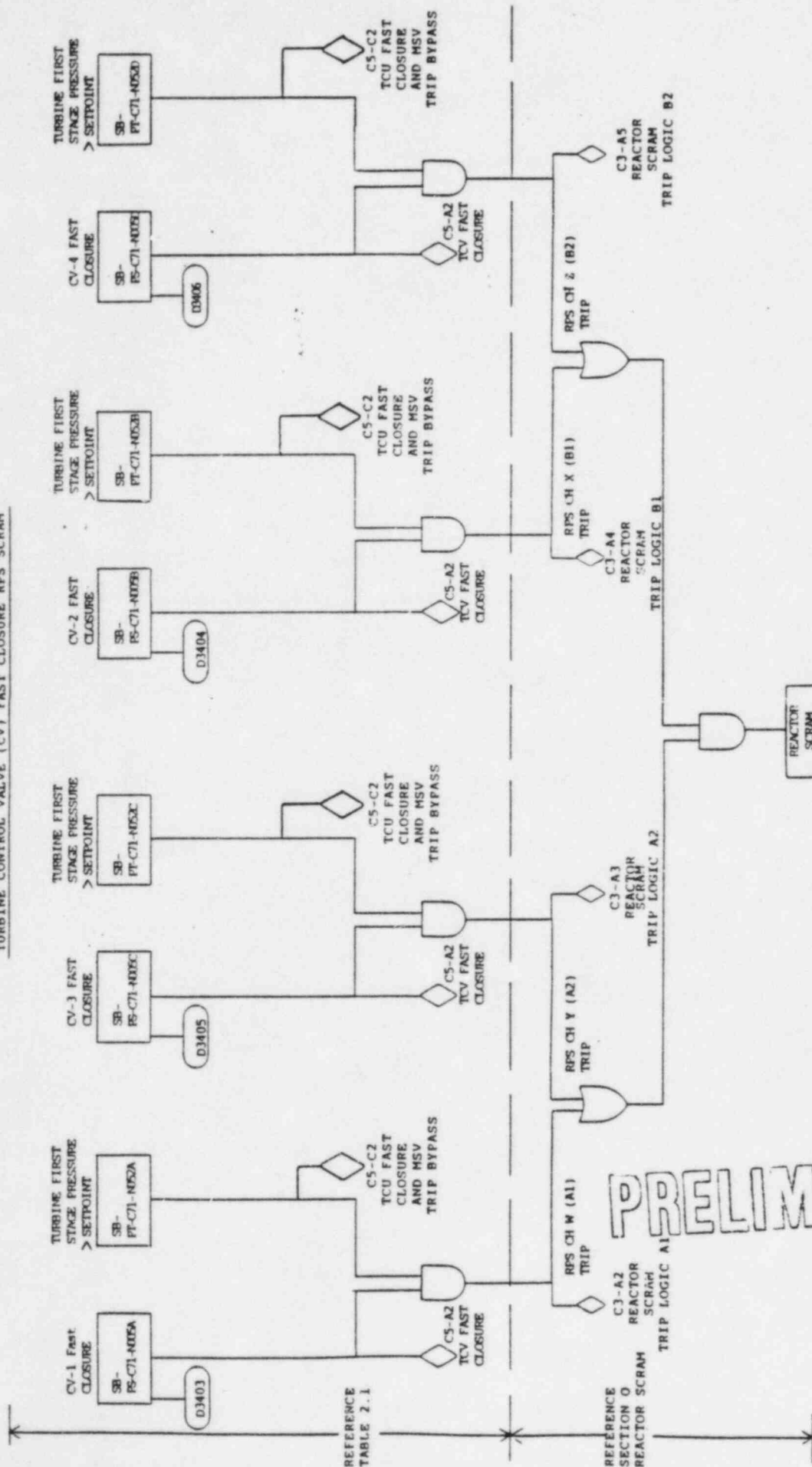
Check the following Plant Recorders to verify the functions listed occurred with the Trip Event.

Recorder	Function	Function Indicated	
		Yes	No
CORE FLOW B31-FR-R614	RECIRC PUMP TRIP		

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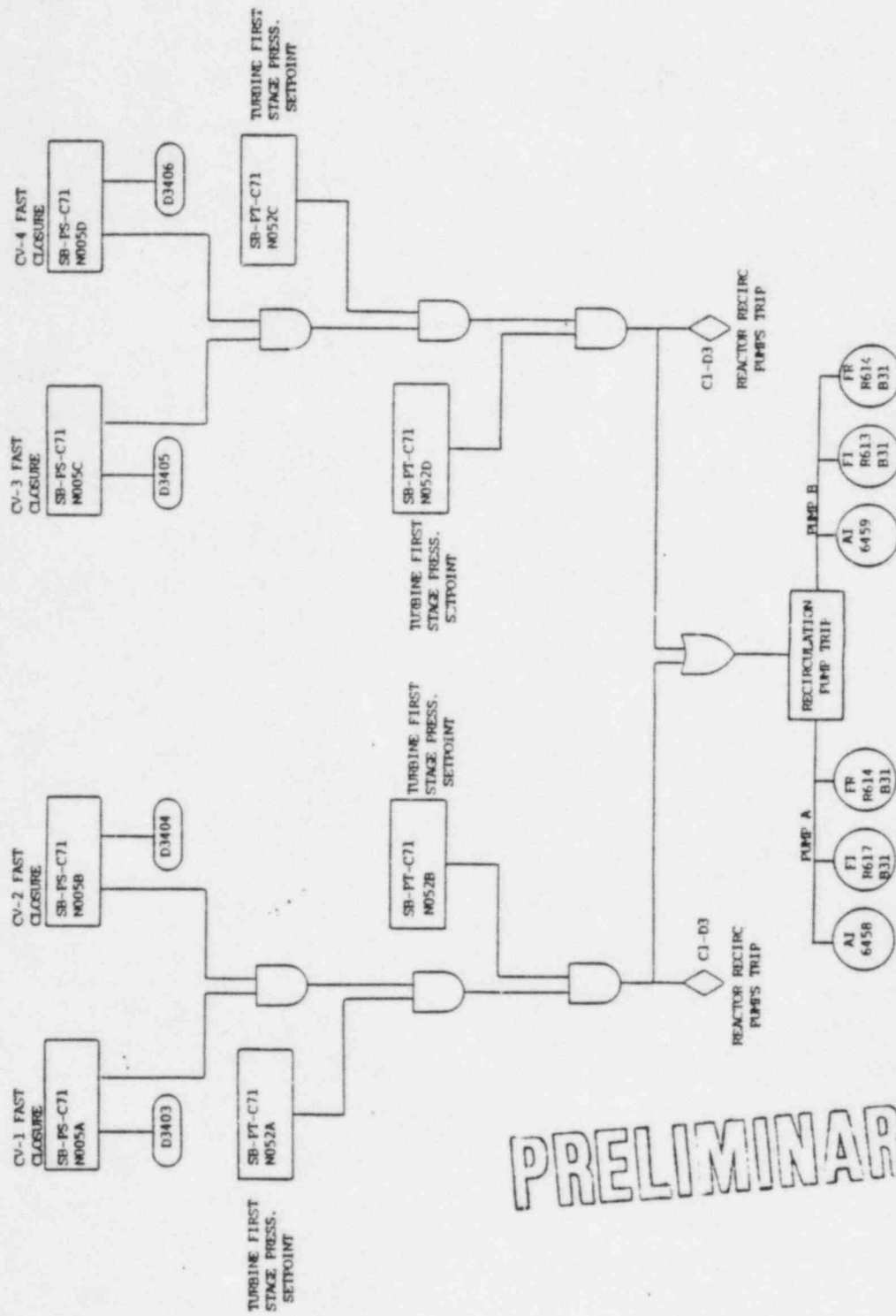
FIGURE 2.1
SAFETY FUNCTION VERIFICATION POINTS FOR
TURBINE CONTROL VALVE (CV) FAST CLOSURE RPS SCRAM



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FIGURE 2.2
SAFETY FUNCTION VERIFICATION POINTS FOR
TURBINE CONTROL VALVE FAST CLOSURE RECIRCULATION PUMP TRIP LOGIC



PRELIMINARY

REFERENCE
TABLE 2.2

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