UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE SUITE 400
ARLINGTON, TEXAS 76011-8064

November 25, 1998

EA 98-478

Randall K. Edington, Vice President - Operations
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

SUBJECT: PREDECISIONAL ENFORCEMENT CONFERENCE HELD NOVEMBER 23, 1998

Dear Mr. Edington:

This refers to the meeting conducted in the Region IV office on November 23, 1998. This meeting related to apparent inoperability of Division I and II emergency diesel generators. Enclosure 1 identifies those who were in attendance and Enclosure 2 is the licensee's presentation discussed during this meeting.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter will be placed in the NRC's Public Document Room.

Should you have any questions concerning this matter, we will be pleased to discuss them with you.

Sincerely,

for Arthur T. Howell III, Director
Division of Reactor Safety

Enclosures:
1. Attendance List
2. Licensee Presentation

cc:
Executive Vice President and
Chief Operating Officer
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

Vice President
Operations Support
Entergy Operations, Inc.
P.O. Box 31995
Jackson, Mississippi 39286-1995

General Manager
Plant Operations
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

Director - Nuclear Safety
River Bend Station
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St. Francisville, Louisiana 70775

Wise, Carter, Child & Caraway
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Jackson, Mississippi 39205

Mark J. Wetterhahn, Esq.
Winston & Strawn
1401 L Street, N.W.
Washington, D.C. 20005-3502

Manager - Licensing
River Bend Station
Entergy Operations, Inc.
P.O. Box 220
St. Francisville, Louisiana 70775

The Honorable Richard P. Ieyoub
Attorney General
Department of Justice
State of Louisiana
P.O. Box 94005
Baton Rouge, Louisiana 70804-9005

H. Anne Plettinger
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President of West Feliciana
Police Jury
P.O. Box 1921
St. Francisville, Louisiana 70775

William H. Spell, Administrator
Louisiana Radiation Protection Division
P.O. Box 82135
Baton Rouge, Louisiana 70884-2135

E-Mail report to T. Frye (TJF)
E-Mail report to D. Lange (DJL)
E-Mail report to NRR Event Tracking System (IPAS)
E-Mail report to Document Control Desk (DOCDESK)

bcc to DCD (IE45)

bcc distrib. by RIV:

Regional Administrator
Resident Inspector
DRP Director
DRS-PSB
Branch Chief (DRP/C)
MIS System
Project Engineer (DRP/C)
RIV File
Branch Chief (DRP/TSS)

DOCUMENT NAME: R:_RB\RB1123MS.LEE
To receive copy of document, indicate in box: "C" = Copy without enclosures **"E"** = Copy with enclosures **"N"** = No copy

RIV:SRI:MB	C:MB	D:DRS				
LEEllershaw/lmb	DAPowers	ATHowell III				
11/4/98	11/5/98 DRP	11/5/98				

OFFICIAL RECORD COPY

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LEEllershaw/lmb	DAPowers	ATHowell III				
11/ /98	11/25/98	11/25/98				

OFFICIAL RECORD COPY

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ENCLOSURE 1

MEETING ATTENDANCE LIST

EOI Personnel

W. Brian, Manager, Mechanical Design Engineering
J. Clark, Operations Shift Superintendent
R. Eddington, Vice President, Riverbend
D. Felps, Nuclear Control Operator
B. Fichtenkort, Senior Engineer, System Engineering
R. King, Director, Nuclear Safety and Regulatory Affairs
M. Krupa, Manager, Corporate Assessments
D. Lorfing, Supervisor, Licensing
J. McGaha, Chief Operating Officer
J. Mead, Supervisor, System Engineering
D. Mims, General Manager, Plant Operations
D. Normandy, Manager, Plant Engineering
D. Pace, Director, Engineering
P. Sicard, Manager, Safety and Engineering Analysis

NRC Personnel

D. Chamberlain, Deputy Director, Division of Reactor Safety
L. Ellershaw, Senior Reactor Inspector
B. Henderson, Region IV Public Affairs Officer
W. Jones, Senior Reactor Analyst
C. Marschall, Chief, Projects Branch C
E. Merschoff, Regional Administrator, Region IV. Paulk, Acting Chief, Maintenance Branch
T. Reis, Senior Enforcement Specialist, Office of Enforcement
G. Replogle, Senior Resident Inspector, River Bend Station
M. Vasquez, Enforcement Specialist, Region IV

ENCLOSURE 2

LICENSEE PRESENTATION DURING
NOVEMBER 23, 1998, MEETING

"Diesel Generator Pneumatic Control System"
(85 pages plus Cover)

DIESEL GENERATOR

PNEUMATIC CONTROL SYSTEM

RIVER BEND STATION

Entergy

November 23, 1998

DIESEL GENERATOR PNEUMATIC CONTROL SYSTEM

River Bend Station

November 23, 1998

INTRODUCTION

Rick King

Director - Nuclear Safety &
Regulatory Affairs

AGENDA

• Introduction	Rick King
• Opening Remarks	Randy Edington
• Overview	Dan Pace
– Condition Description and Discovery	
– Pneumatic Controls	
– Initial Operability and Actions	
• Historical Perspective and Root Cause	Mike Krupa
• Corrective Actions	Dwight Mims
• Safety Significance Evaluation	Paul Sicard
• Pre-Operational and Surveillance Tests	Rick King
• Enforcement Perspective	Rick King
• Closing Remarks	Randy Edington

OPENING REMARKS

Randy Edington

Vice President, Operations

APPARENT VIOLATIONS

- Criterion III - Failure of design control measures to adequately verify or check that the safety-related diesel generator control air instrument and controls systems remained functional during a LOOP
- Tech Spec 3.8.1.b - Failure to maintain operability of the Division I and II EDG's
- Criterion XVI - Failure to document, report and promptly correct a significant condition adverse to quality
- Criterion XI - Failure of pre-operational and operational testing to assure that the EDG's would perform satisfactorily in service

OVERVIEW

Dan Pace

Director, Engineering

RBS DIESEL GENERATORS

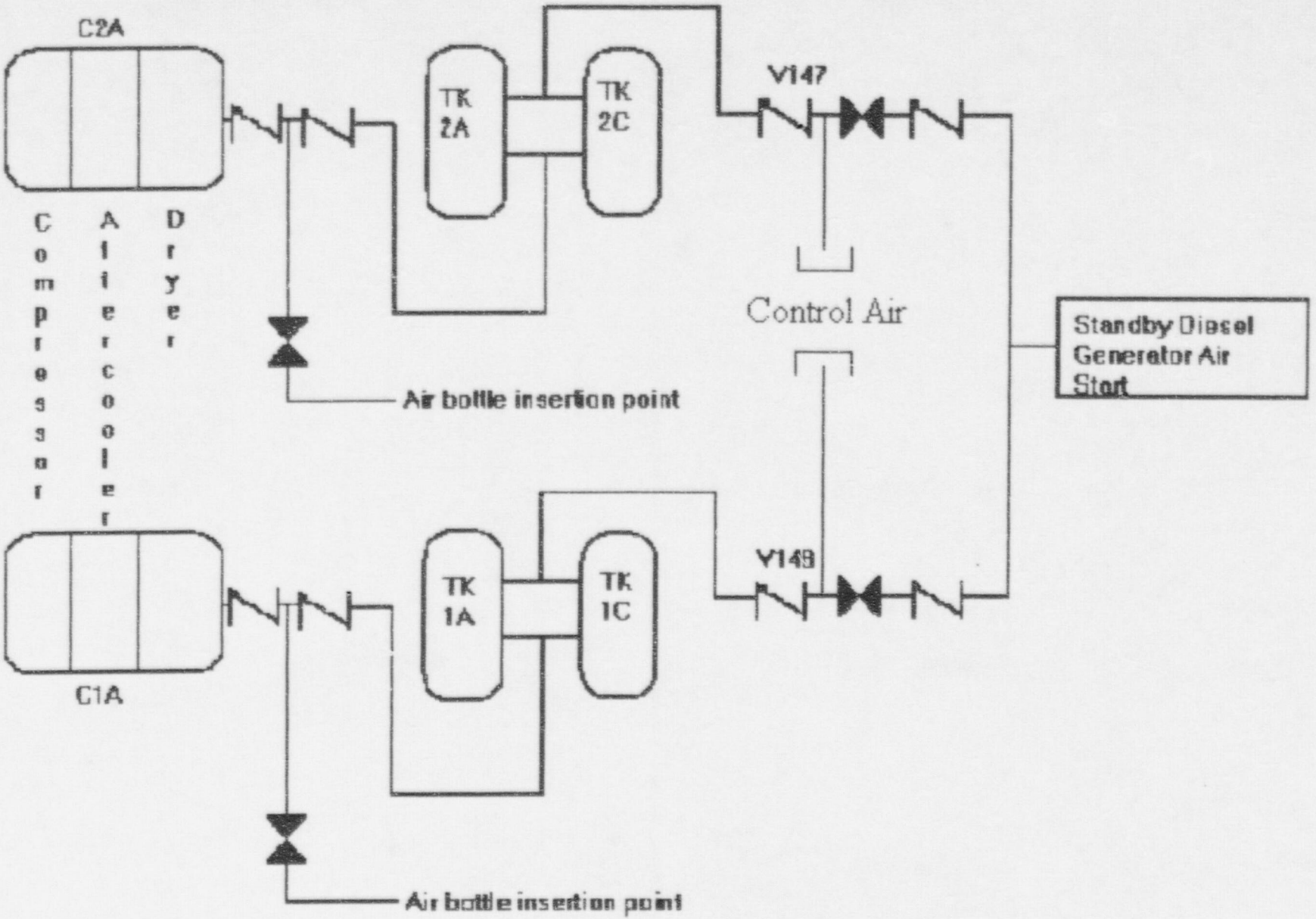
- Division I & II - TDI
- Division III - EMD

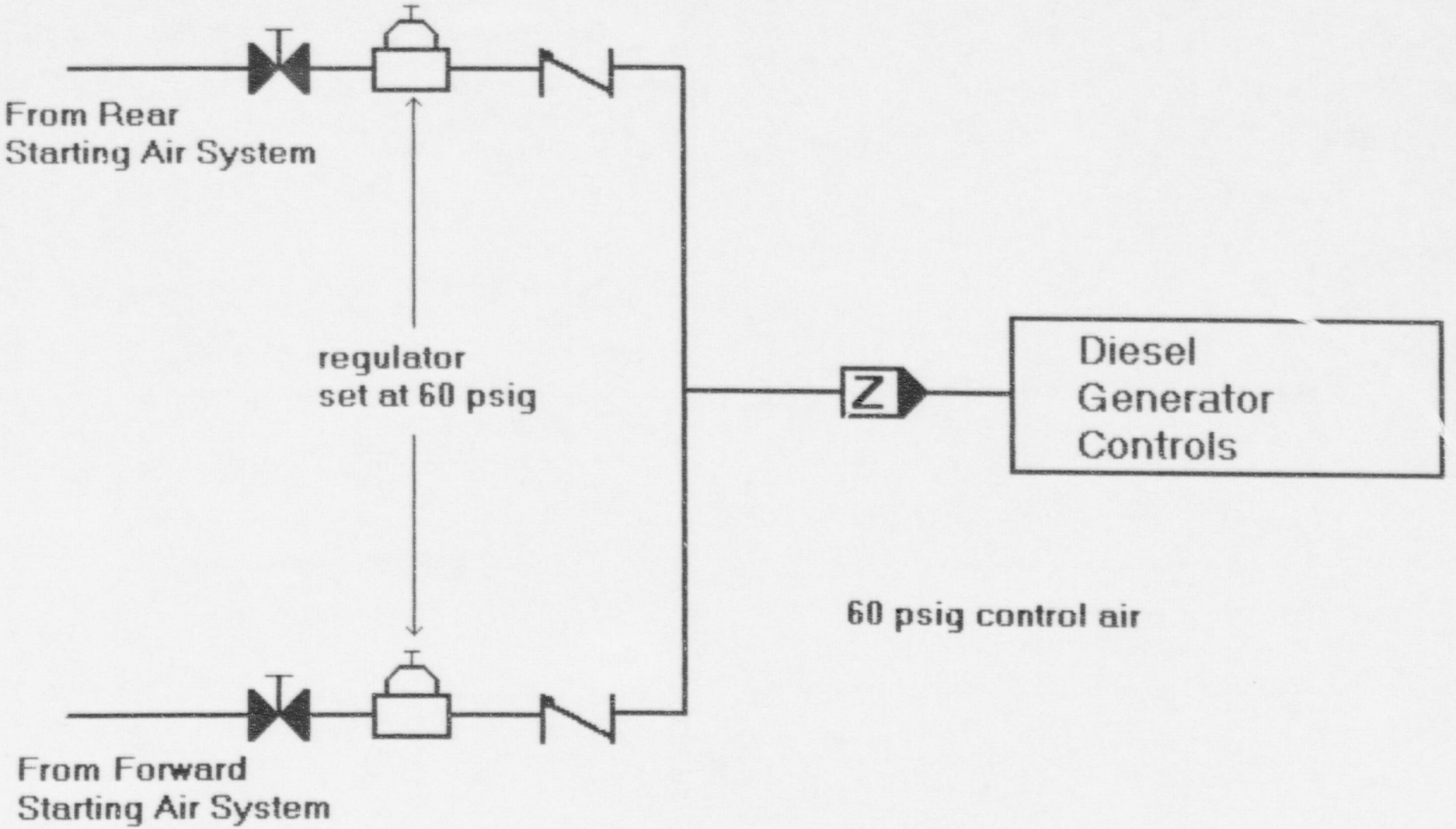
CORRECTIVE ACTION INSPECTION

- NRC questioned safety classification and power supply for the makeup air compressors
- Makeup air non-safety related - air bottles connected via procedure
- Inspector initially classified this as an operator work around due to inadequate design
- Engineer continued to evaluate the air system to ensure configuration was acceptable

CONDITION DISCOVERED

- EDG control air
  - 250-235 psig normal operating pressure
    - Non-emergency trips bypassed in emergency mode
  - Air pressure degrades to 120 psig
    - Set point intended to stop crank cycle
    - Secondary effect to un-bypass non emergency trips
  - Air pressure degrades to approximately 40 psig
    - Device installed to assist Group II trips actuates
    - Diesel trips on non-emergency trip

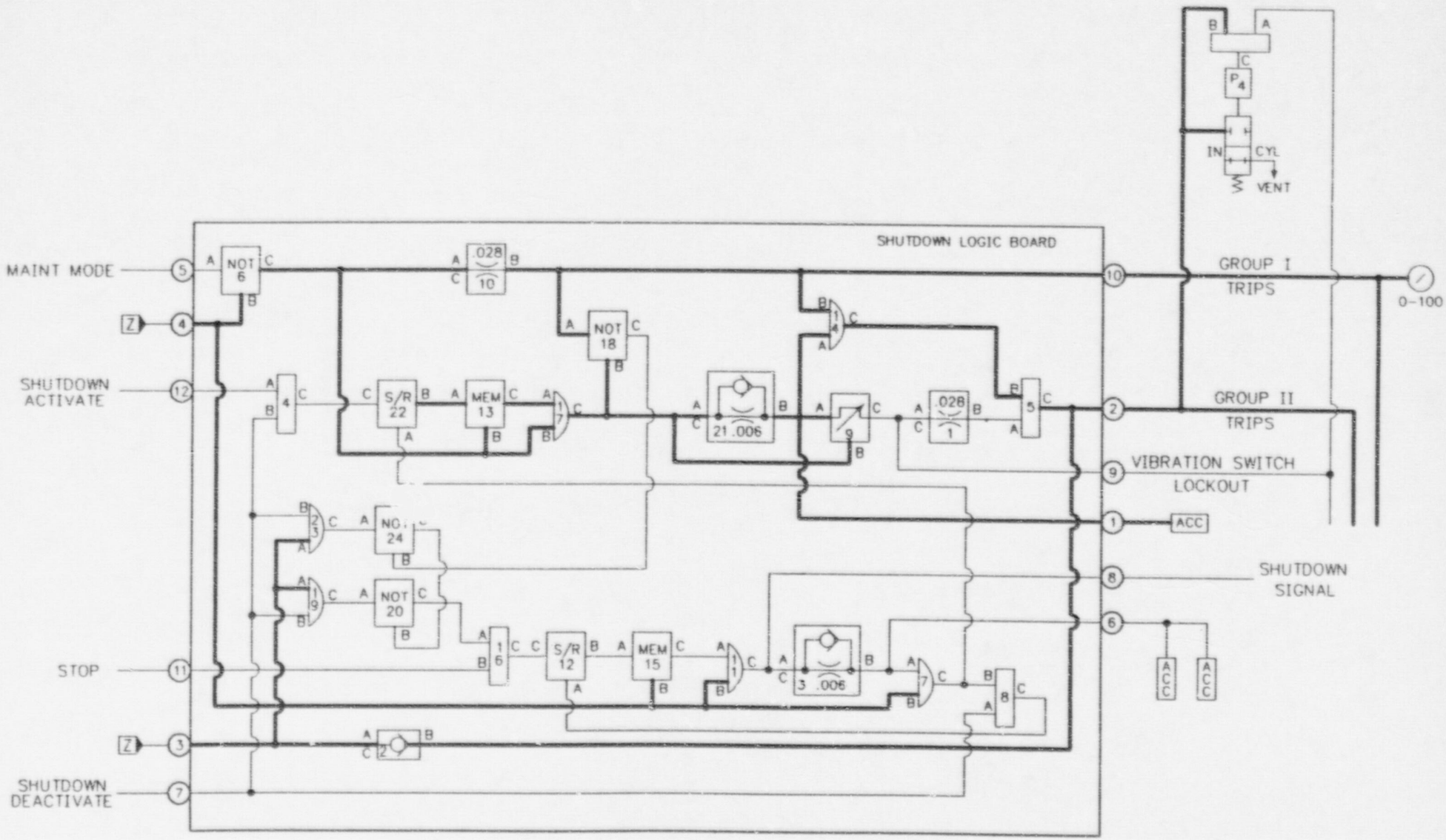

C2A
Compressor
Aftercooler
Dryer
TK 2A
TK 2C
V147
Control Air
Standby Diesel Generator Air Start
Air bottle insertion point
C1A
TK 1A
TK 1C
V148
Air bottle insertion point


From Rear
Starting Air System
regulator
set at 60 psig
Z
Diesel
Generator
Controls
60 psig control air
From Forward
Starting Air System

NORMAL OPERATION

(START SEQUENCE COMPLETE)

TRIPS ENABLED



GROUP I & II TRIPS

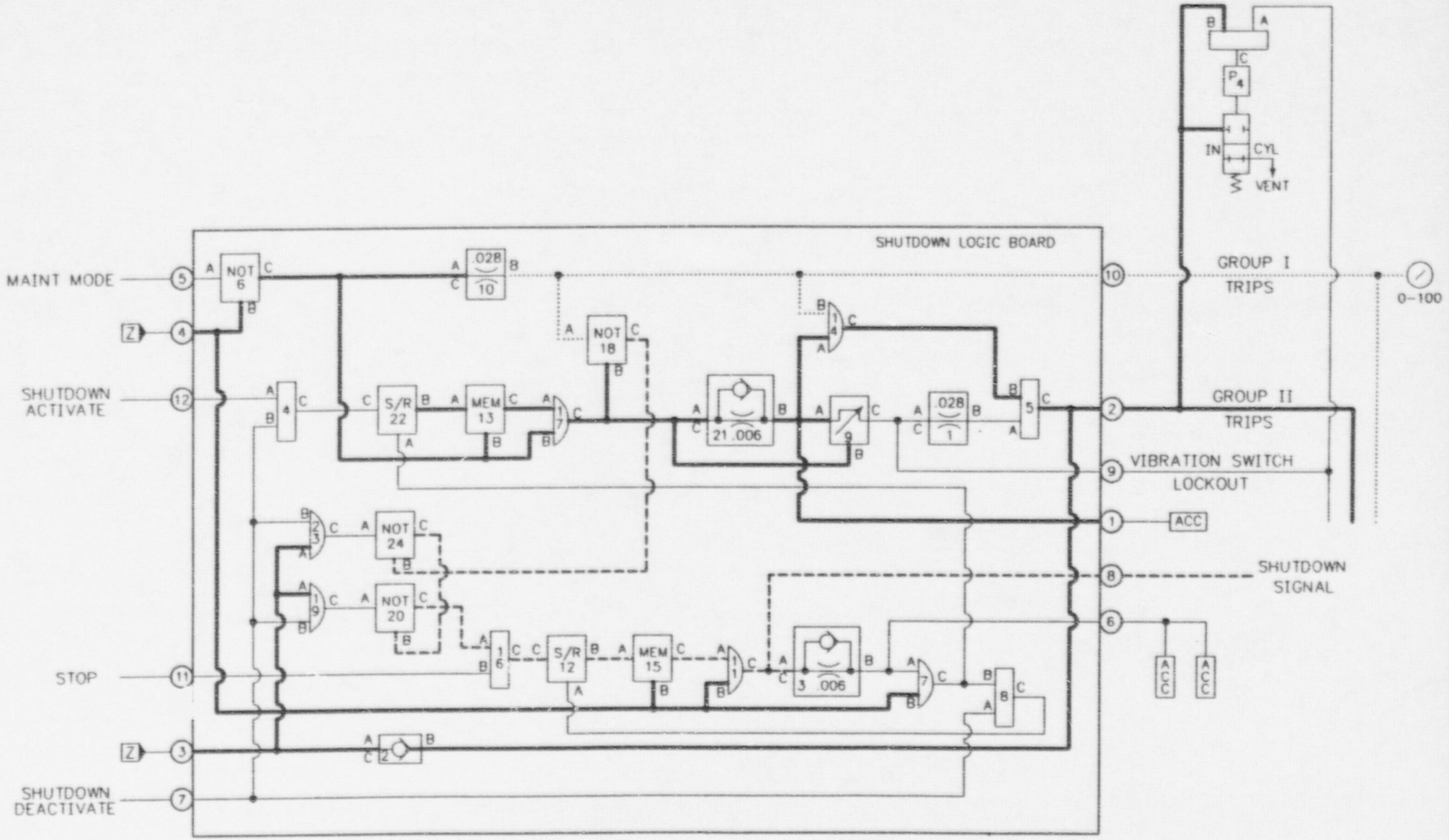
Group I Trips

- High lube oil temp
- High bearing temp

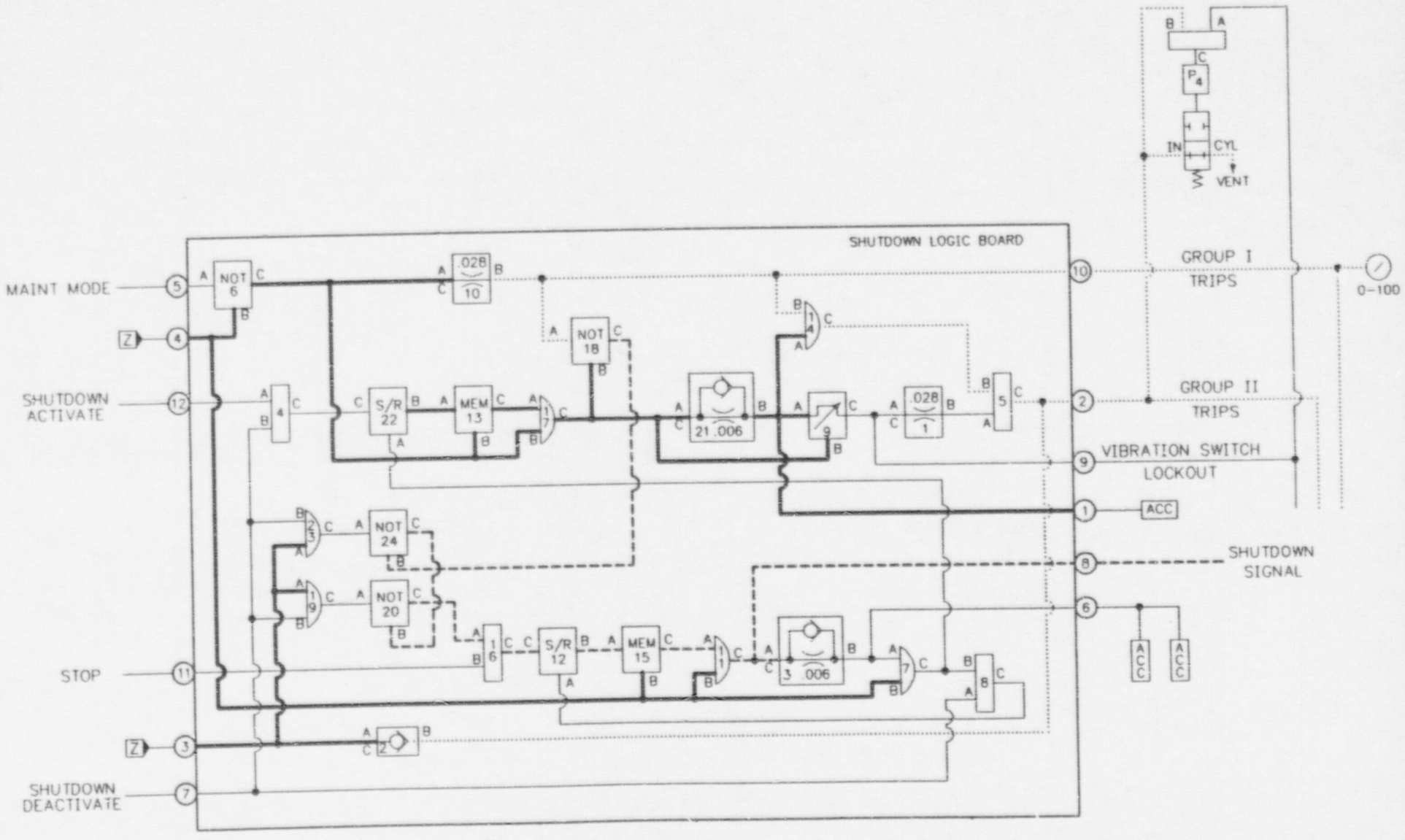
Group II Trips

- High crankcase press
- Low lube oil press
- Low turbo oil press
- Low jacket water press
- High vibration
- High jacket water temp

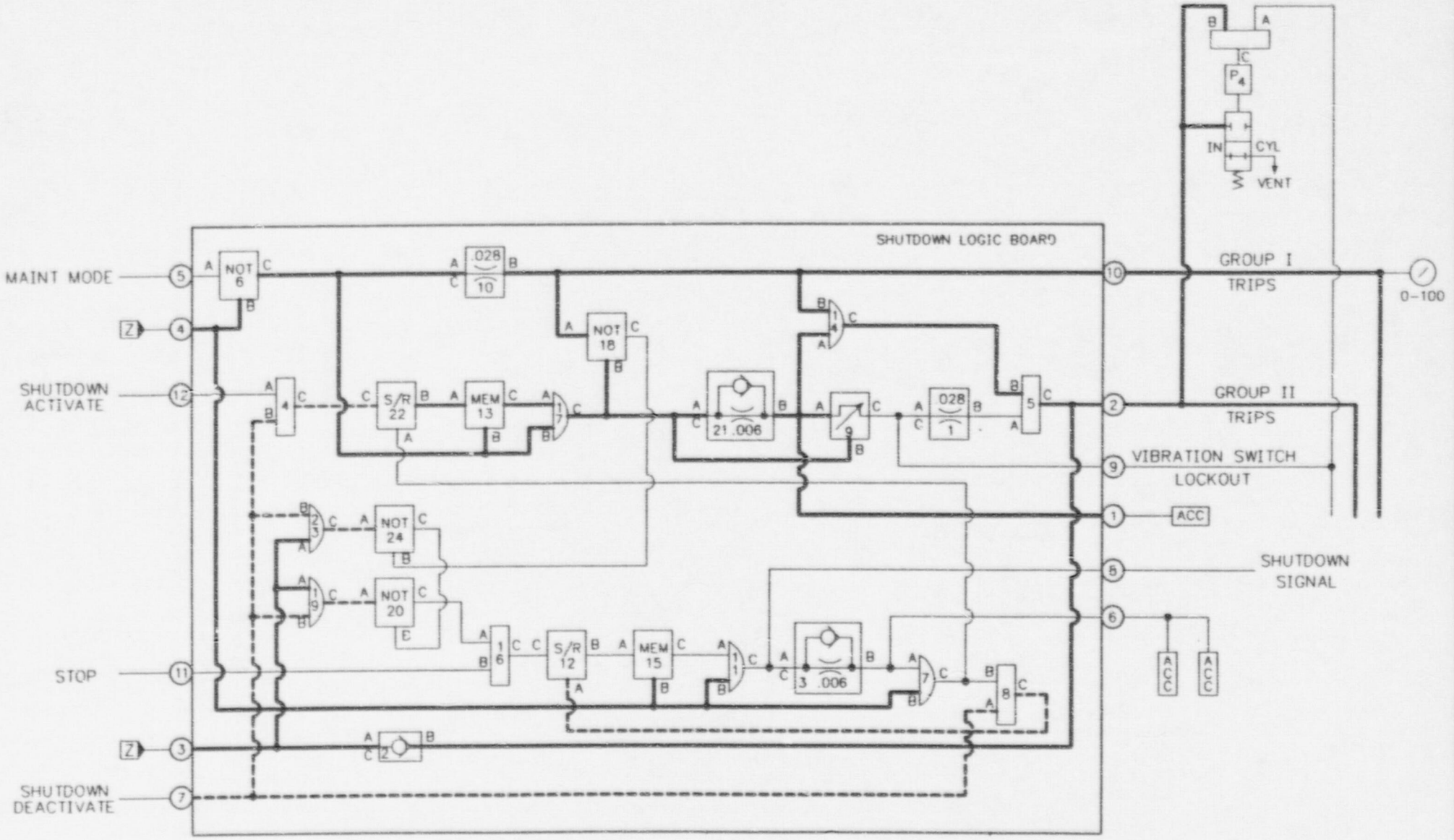
GROUP I TRIP


SHUTDOWN LOGIC BOARD
MAINT MODE
SHUTDOWN ACTIVATE
STOP
SHUTDOWN DEACTIVATE
NOT 6
.028 10
NOT 18
S/R 22
MEM 13
21 .006
.028 1
NOT 24
NOT 20
S/R 12
MEM 15
3 .006
GROUP I TRIPS
GROUP II TRIPS
VIBRATION SWITCH LOCKOUT
ACC
SHUTDOWN SIGNAL
IN
CYL
VENT
0-100

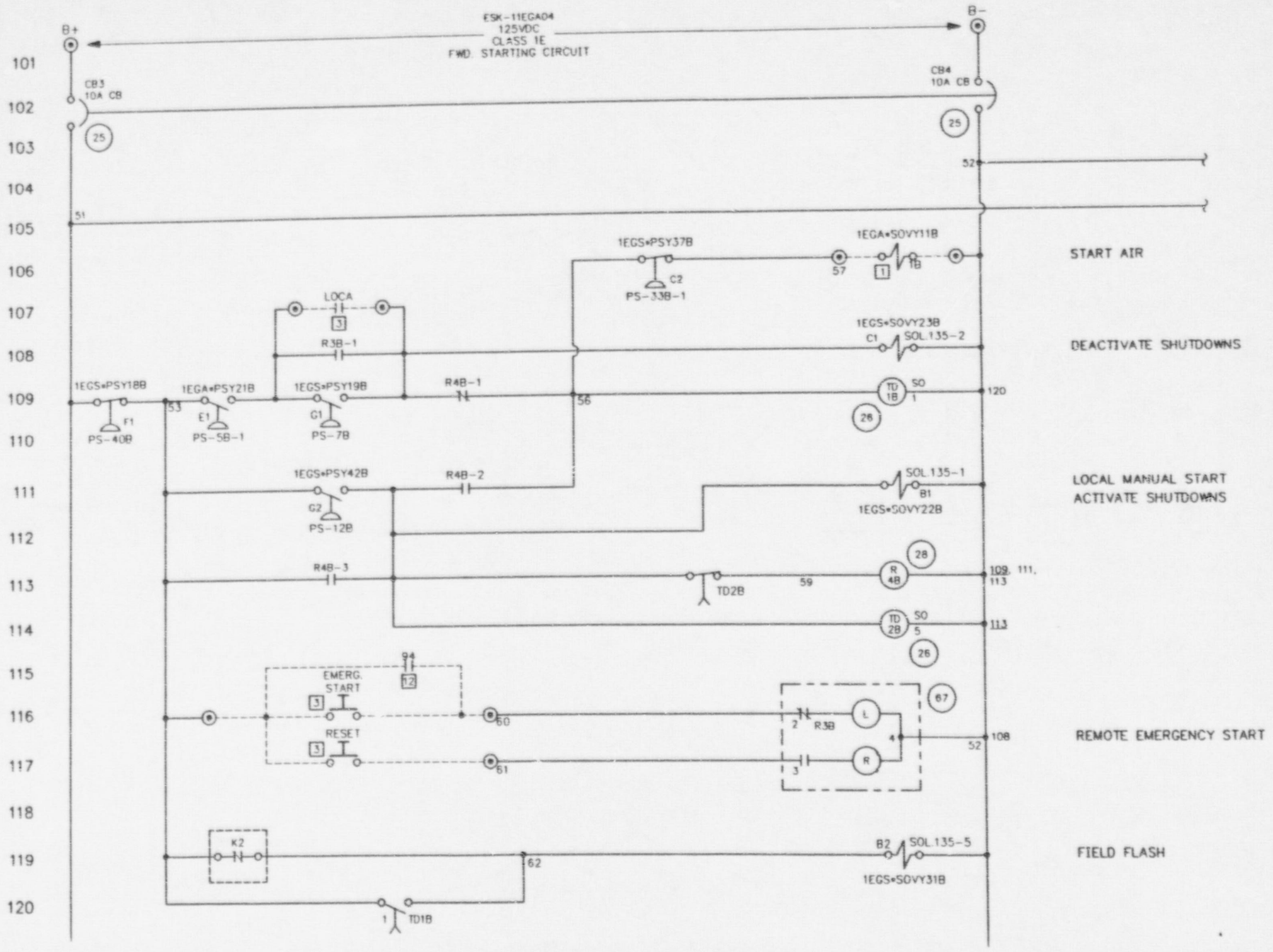
GROUP II TRIP



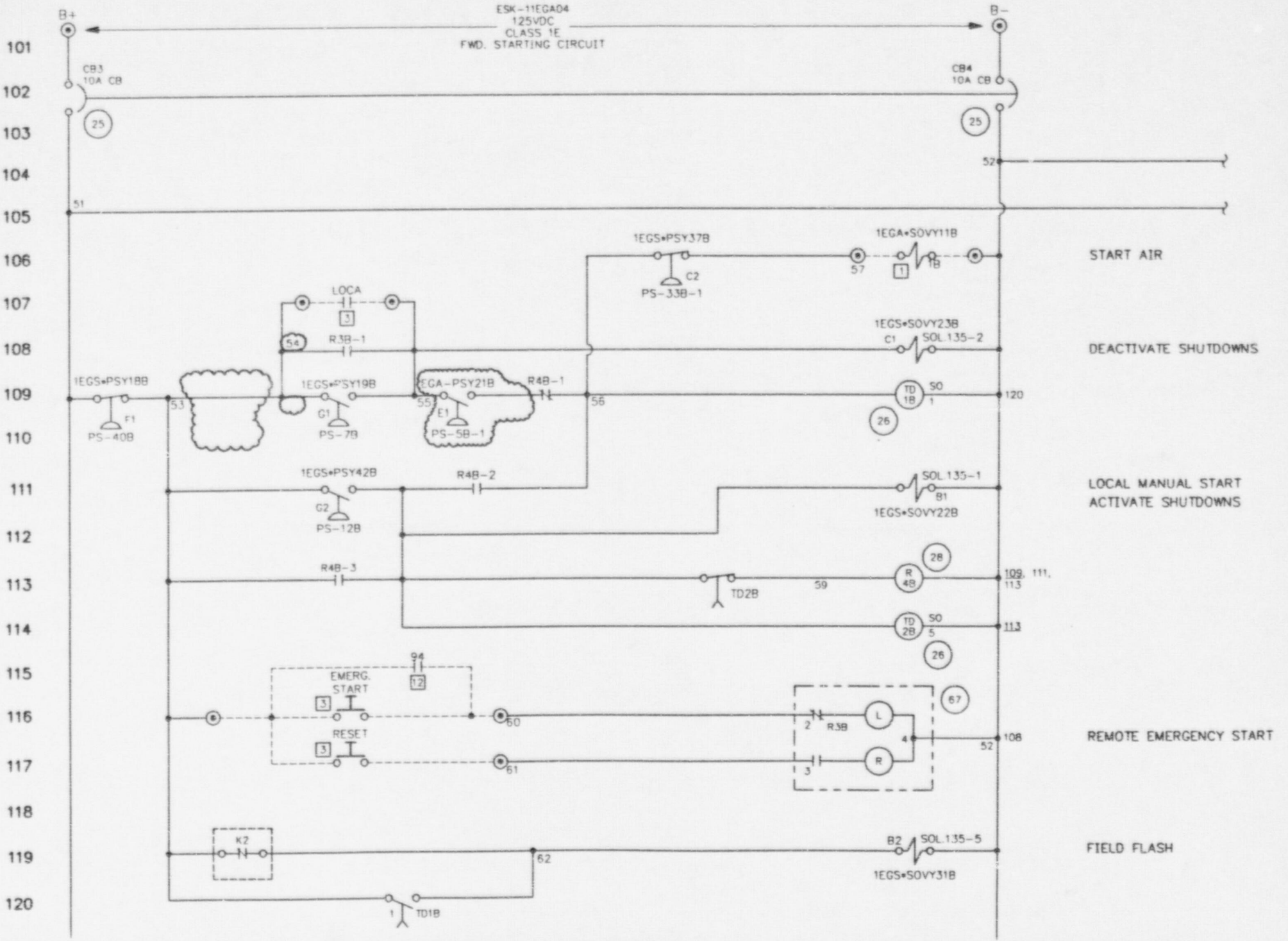
EMERGENCY MODE



LOGIC AS FOUND



LOGIC AFTER PART 21



DISCOVERY

- Engineer determined a trip would occur at 40 psig pressure decreasing
- EDG vendor maintained diesel designed not to trip on loss of air
- Fuel shutdown cylinder manufacturer confirmed cylinder would actuate below approx. 40 psig
- Reviewed this discovery with EDG vendor
- EDG vendor concurred with our finding

CONDITION DOCUMENTED

- Procedures revised in 1990 to require air bottles
- Original perception (later determined to be incorrect) was the changes were made to provide makeup air for long term diesel operation
- IST program did not reflect requirements to maintain control air
- The potential to un-bypass non-emergency trips at 120# falling was not adequately evaluated

INITIAL OPERABILITY

- Procedures already in place to connect make-up air
- Evaluated capability to perform this function
  - Drop test in IST program used as basis
  - Two hour time in Ops procedures used
  - Seismic qualification of compressor skid used

INITIAL ACTIONS

- Informed operations of the importance of performing the actions
- Ensure actions specified in procedures could be performed
  - Confirmed 49 air bottles on site
  - Walk-down ability to connect air bottles
  - Connection took longer than expected - CR generated

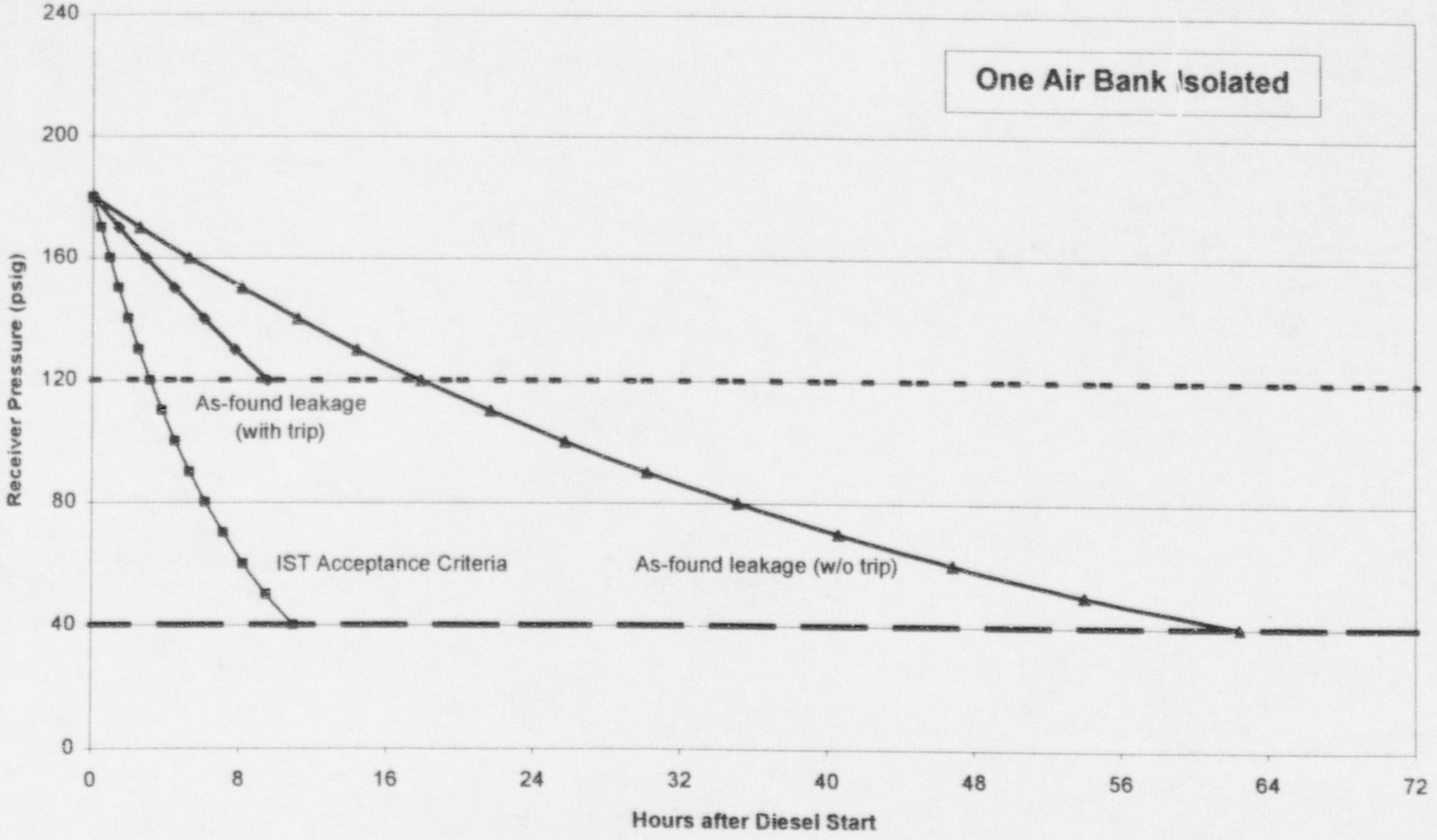
PRIORITIES

- #1 - Operability of diesels
- #2 - Determine long term fix
- #3 - Review history of actions

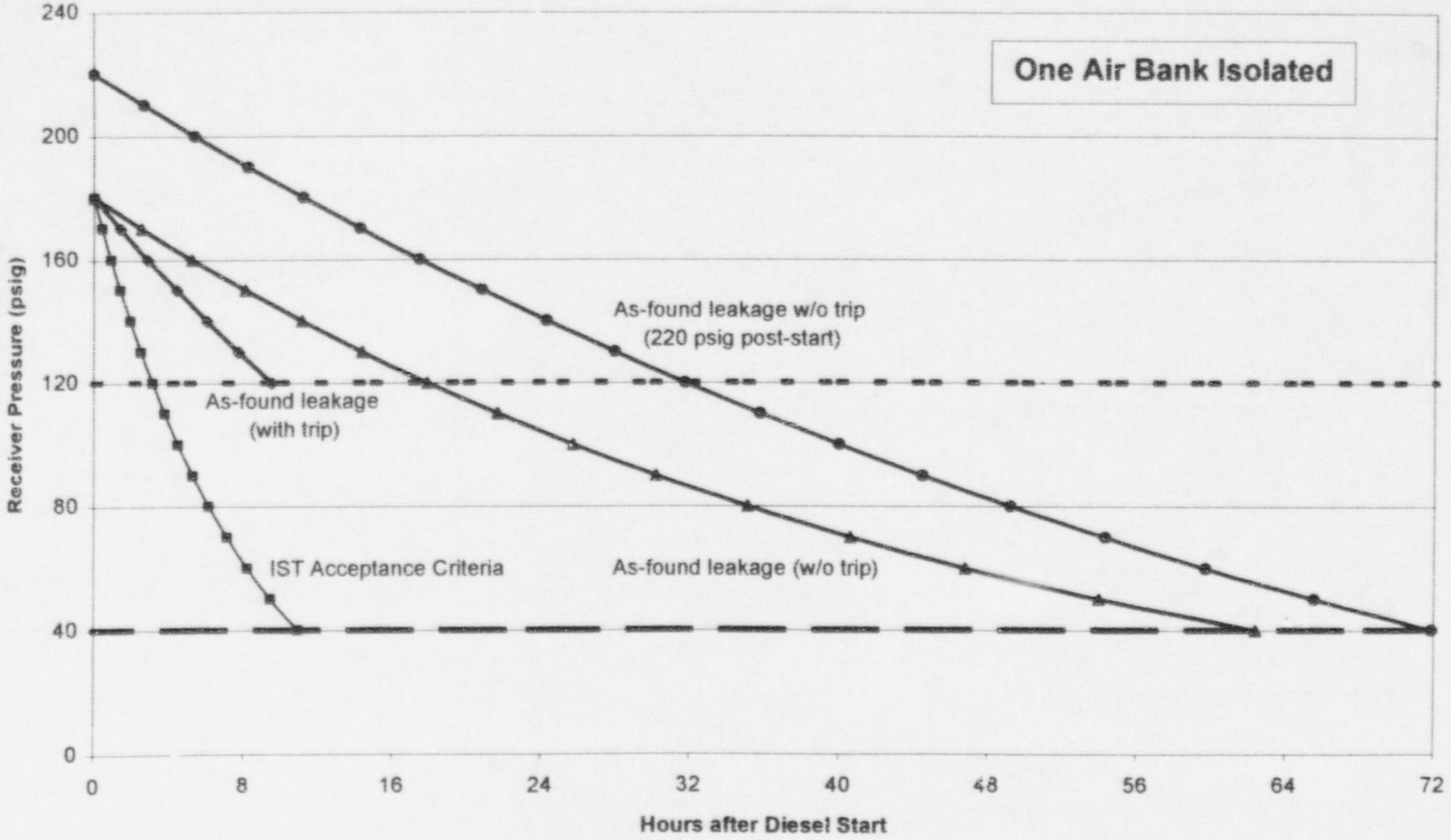
LEAKAGE TESTING

- As found leakage test performed to improve confidence
- Both diesels tested for as found leakage
  - No preconditioning
  - Existing audible leakage
  - Diesels tested in operation (non-emergency)
- As found leakage significantly less than initial IST assumption
- CAR issued to diesel vendor

Diesel Air Receiver Decay Times



Diesel Air Receiver Decay Times



LONG TERM FIX

- A design team was assembled to evaluate the alternatives
- Design approach also fixes system maintenance issues
- Contract was developed and released to upgrade system
- Scope and schedule preceded

LONG TERM FIX(cont)

- Extended schedule for air system modification
- 120 psig bypass modification separated from the base modification and expedited (Part 21 fix)
- 1E power added to one compressor system on each diesel
- Base modification expedited

TEAM REVIEW

- Team formed to review history of condition
- Original licensing basis is silent on function of control air
- Station personnel were trained that the diesel would not trip on loss of air
- Procedure changes made in 1990 were to ensure indication and the ability to trip the diesel - not to prevent a trip
- No direct trip on loss of air exists after Part 21 issue is corrected

DESIGN CONCLUSIONS

- Diesels were designed to run, and provide all safety functions, without control air
- Diesels do not trip without control air
- Diesel trip on degrading air is due to diesel original design error discovered at RBS
- Modification to repair 120# un-bypass restores diesel to original design intent
- Pneumatic logic design (air loss) should be further validated

SUMMARY

- Questioning attitude by system engineer discovered generic problem
- Acutely aware of the significance of both diesels failing to perform
- Initial operability was reasonable and timely
- Part 21 was filed by the vendor on this design error
- Work with TDI Owners Group to review design (FMEA) - River Bend plans to host

Historical Perspective
&
Root Cause

Mike Krupa

Manager, Corporate Assessments

DISCUSSION POINTS

- Scope of the Investigation
- Root Cause Conclusions
- Perspective on Historical Events

ROOT CAUSE ANALYSIS

- Root cause : Original design error
- Deficiencies found:
  - Re-instatement of bypassed trip logic (Part 21) with subsequent inadvertent trip from the 'P4' device
  - Loss of trip energy in a LOOP (non-safety function)
  - Loss of annunciators in a LOOP (non-safety function)

CONTROL AIR FUNCTION

- The control air system has three functions:
  - Provides for annunciation of the EDG trip parameters
  - Shutdown the machine from any mode of operation
  - Provides for the bypass of the non-emergency trips
- Engine design / experience:
  - Start & Run w/o control air
  - Trips are bypassed with control air
  - Trips are not functional w/o control air

Training & Experience Paradigm

- Training, operating & testing history reinforced the design intent
- RBS staff knew make up air not available in a LOOP
- RBS staff knew low control air pressure resulted in:
  - Illogical annunciator response
  - Inability to normally shutdown the EDG

HISTORICAL PERSPECTIVE

- Original design interface
  - Trip energy not available with loss of air
  - Annunciators not available on loss of air
  - Proceduralized make-up air (1990)
- Design validation / verification
  - Pre-operational & surveillance testing
  - Failure modes and effects

HISTORICAL PERSPECTIVE

- Special Report (1989)
  - Non-valid EDG trip from bearing temperature
- NRC Telephone call discussed (1990):
  - long term make-up air supply
  - moisture discovered in air system
  - procedures required to provide an alternate source for air
- Procedures revised as discussed (1990)
- Modification to air dryer completed

HISTORICAL PERSPECTIVE

- Change to the lockout set point (EDSFI)
  - 150 to 120 psig
- Secondary function bypassed the non-emergency trips
  - On emergency start this is not a problem since the EDG failed to start
  - The question on falling pressure during operation was reviewed after the bottles were proceduralized

HISTORICAL PERSPECTIVE (Inspection Report Issues)

- Guidance for crediting operator action
  - Generic Letter 91-18
  - Operations Policy 19
  - Information Notice 97-78
- EDG was shutdown due to a lifted relief valve (CR 98-0044)

SUMMARY

- Extensive Review Effort
- Root Cause: Original Design Error
- Deficiency was not the lack of air, but the inadvertent trip generated as air pressure decays
- The documentation, training, and events supported the fact that control air was not required to perform the design function
- Significance of the interaction of design deficiency was not recognized until June 1998

CORRECTIVE ACTIONS

Dwight Mims

General Manager, Plant Operations

CORRECTIVE ACTIONS IMMEDIATE

- Staged pressurized air bottles / regulators for connection to air system
  - Improvements to bottle staging / segregation
  - Air regulators enhanced

CORRECTIVE ACTIONS IMMEDIATE (cont)

- Measured EDG air system leakage
  - Starting air pressure decay testing performed to obtain "as found" leakage - June 1998
  - Second starting air pressure decay test performed - October 1998

CORRECTIVE ACTIONS IMMEDIATE (cont)

- Informed operators of effects on control air system when air pressure is degraded

CORRECTIVE ACTIONS

- Short Term
  - Corrective action request issued to EDG vendor (vendor issued Part 21)
  - Initiated special investigation (SERT) team

CORRECTIVE ACTIONS

- Short Term
  - Modification to the non-emergency trip bypass logic
  - Class 1E power provided to one compressor on each diesel

CORRECTIVE ACTIONS

- Long Term
  - Provide reliable air supply system
  - Complete review of control system logic for all modes of operation

CORRECTIVE ACTIONS

- Long Term (cont.)
  - Update design and licensing basis documentation
  - Update the vendor manual
  - Issue system design criteria

CORRECTIVE ACTIONS

- Long Term (cont.)
  - Revise training material
  - Revise operating procedures

CORRECTIVE ACTIONS

- Long Term (cont.)
  - Operating procedures reviewed for generic implications
  - Engineering evaluated results of procedure reviews
  - Revise IST program for air system components

CORRECTIVE ACTIONS

- Conclusions
  - Actions were taken to achieve:
    - Confidence in DG operability and performance of safety function
    - Improved reliability, availability and reduced operator burden (did not stop at root cause of issue)
  - Significant effort and resources were applied to:
    - Assure that cause determination was thorough
    - Ensure complete understanding of system operation
    - Ensure related issues were identified

CORRECTIVE ACTIONS

- Conclusions (cont.)
  - RBS identified the issue to the industry
  - RBS taking leadership role in Owners Group to
    - Share experience
    - Improve reliability
    - Assure common resolution
  - Lessons learned to be applied toward future problem solving on issues at RBS

SAFETY SIGNIFICANCE EVALUATION

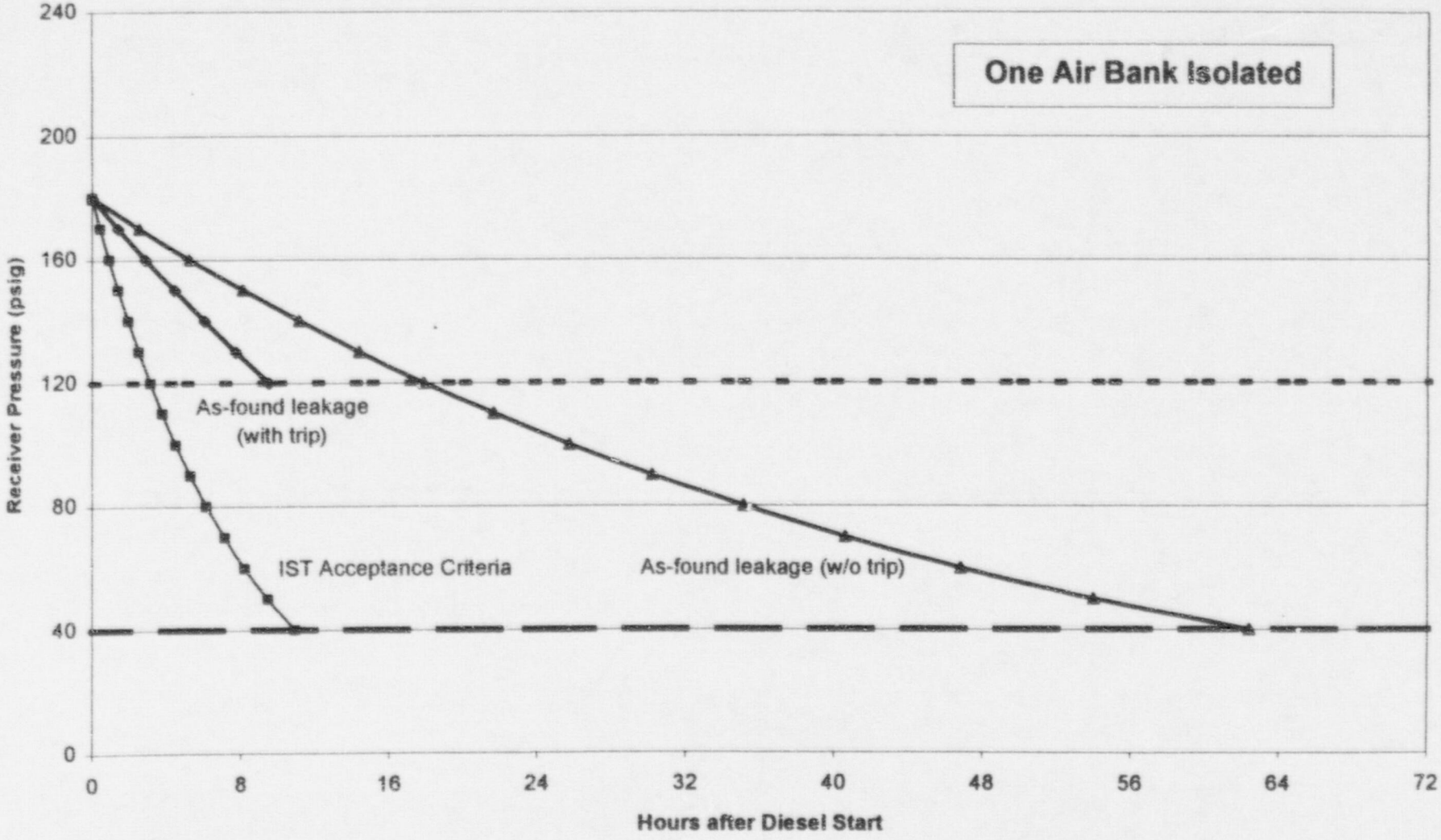
Paul Sicard

Manager - Safety & Engineering Analysis

SAFETY SIGNIFICANCE

- Div I / II DG's credited for many Ch.15 events, including LOCA
- Based on test data:
  > 6 hrs before any non-emergency trips could occur
- Operator actions (use of air bottles) proceduralized
- Division III unaffected

Diesel Air Receiver Decay Times



SAFETY SIGNIFICANCE (Cont.)

- Historic Industry Data: Median LOOP Duration of 1 hour (EPRI TR-110398)
- Reactor Q_{decay}: 7.0% at 1 min.;
  0.78% at 6 hrs;
  0.58% at 14 hrs

  DG's most critical very early
- Div I/II DG's fully capable of performing safety function after LOOP for extended time without operator action

RISK SIGNIFICANCE

- PRA Analysis Assumptions
  - No credit for air bottles as backup
  - No credit for diesel generator recovery
  - Plant specific failure rates & maintenance unavailabilities for Div I/II and Div III DG's
  - Probabilistically credits offsite power availability and recovery
  - No further LOOP recovery after diesels trip

RISK SIGNIFICANCE

Core Damage Frequencies:

- Baseline 1.95E-6/yr.
- Div I/II DG's run only 6 hrs
  2.29E-6/yr. (18% increase)
- Non-risk significant,
  per EPRI/NEI PSA Applications Guide
- 6 hours very conservative bounding basis

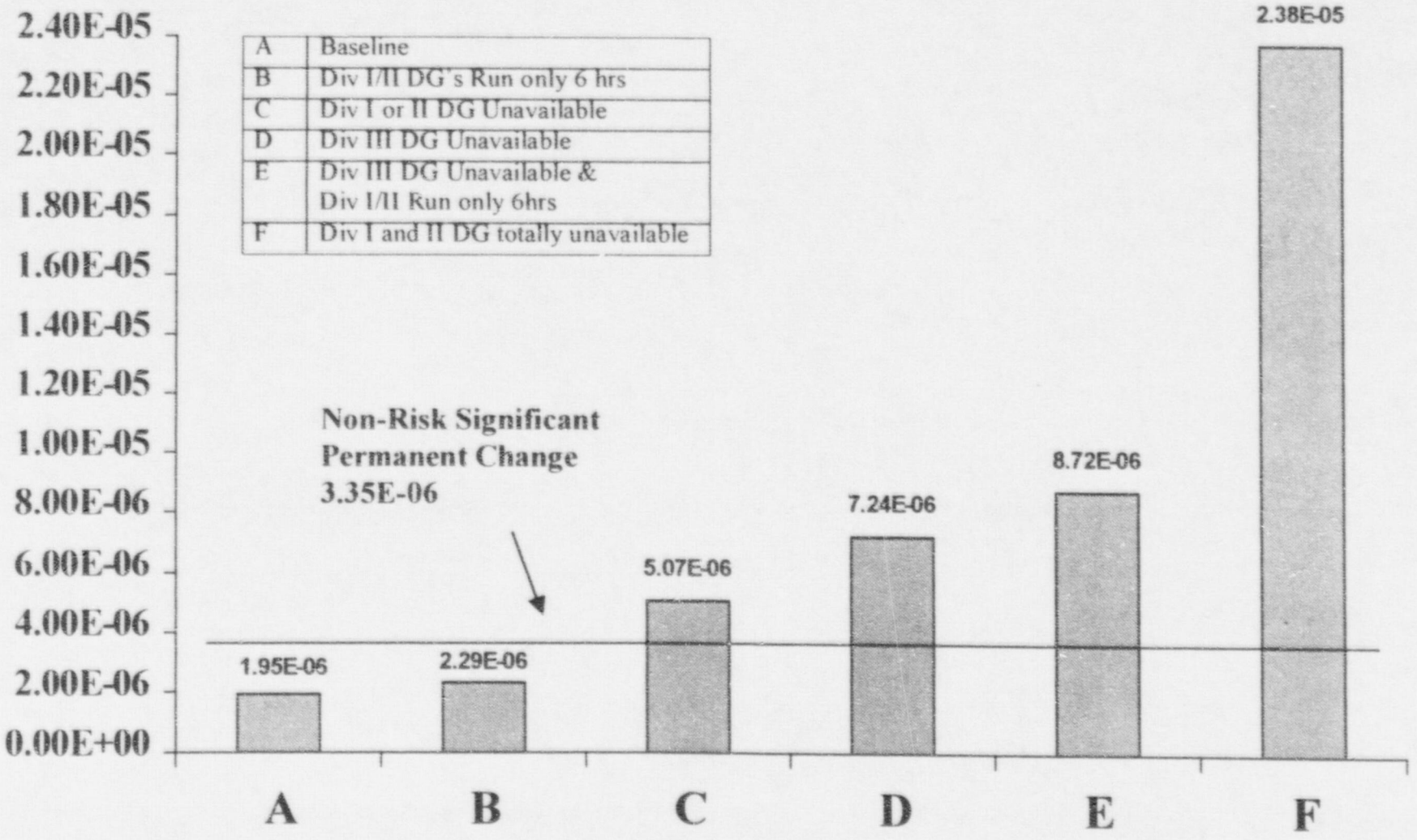
RISK SIGNIFICANCE: DIV.III DG UNAVAILABLE

Core Damage Frequency:

- Baseline 1.95E-6/yr.
- with Div. III DG unavailable
  7.24E-6/yr.
- with Div. III DG unavailable
  and Div.I/II DG's work only 6 hours
  8.72E-6/yr. (+20%)

CDF Sensitivities to DG Assumptions

A	Baseline
B	Div I/II DG's Run only 6 hrs
C	Div I or II DG Unavailable
D	Div III DG Unavailable
E	Div III DG Unavailable & Div I/II Run only 6hrs
F	Div I and II DG totally unavailable



CONCLUSIONS

- Greatest safety significance of diesels involves ability to perform safety function early in event
- Limited impact on safety significance since Div I/II DGs would run for an extended period time
- CDF increase due to the diesel air issue is non-risk significant per NEI/EPRI PSA Guideline

PRE-OPERATIONAL AND SURVEILLANCE TESTS

Rick King

Director - Nuclear Safety &
Regulatory Affairs

TESTING SUMMARY

- Vendor qualification or pre-operational testing did not adequately verify that the design intent of the control logic was met
- Surveillance test 3.8.1.13 (24 hour run) was performed per Technical Specification requirements

DESIGN SAFETY FUNCTION

- Safety function of control logic:
  - Maintain non-emergency trips bypassed with diesel running in the emergency mode
    - Allow continued diesel operation in emergency mode on degrading air pressure
    - Allow continued diesel operation in emergency mode without air pressure

VENDOR QUALIFICATION AND PRE-OPERATIONAL TESTING

- Reviewed design and licensing basis requirements for testing of the subject design feature
- Vendor testing performed per RG 1.9, IEEE 387-1977
  - Require testing of diesel control and protective systems to ensure they perform their intended application

VENDOR QUALIFICATION AND PRE-OPERATIONAL TESTING

- Pre-operational testing
  - RG 1.68 guidance specifies testing of the diesel control system including protective devices whose malfunction or premature actuation may shutdown or defeat the operation of the systems

VENDOR QUALIFICATION AND PRE-OPERATIONAL TESTING

- Conclusion:
  - While the control logic system was tested, no test of the bypass features involving degrading air pressure was identified
  - Vendor qualification or pre-operational testing was inadequate to identify the design error
  - This testing did not verify all design requirements of the control system (that it perform its safety function with loss of control air)

SURVEILLANCE 3.8.1.13

- Tech Spec Requirements:
  - Verify diesel load carrying capabilities for a period of > 24 hours
  - Must be performed consistent with RG 1.108, paragraph C.2.a.3, "Testing"
    - Verify full-load carrying capability for 24 hours
    - Verify voltage and frequency requirements
    - Verify cooling system functions

SURVEILLANCE 3.8.1.13

- Additional RG 1.108 Requirements:
  - Paragraph B, "Discussion"
    - "The testing of the diesel generator unit should simulate, where practicable, the parameters of operation…and environments …that would be expected if actual demand were placed on the system."

SURVEILLANCE 3.8.1.13

- Additional RG 1.108 Requirements (cont.)
  - Paragraph C. 1. B "Regulatory Position" / "General"
    - "The design should include provisions so that the testing of the units will simulate the parameters of operation (outlined in C.2) that would be expected if actual demand were to be placed on the system."
    - Paragraph C.1.b Sub-paragraph (6)
      - "All diesel generator protective trips should be in force during diesel generator unit testing."

SURVEILLANCE 3.8.1.13

- Conclusion:
  - Surveillance 3.8.1.13 was intended to test the design load carrying capability
  - RG 1.108 specifies protective trips should be in force during this test
  - Protective trips require air pressure to function
  - It is acceptable to perform Surveillance 3.8.1.13 with air pressure provided to the control system logic
  - RBS is in compliance with SR 3.8.1.13

ENFORCEMENT PERSPECTIVE

Rick King

Director - Nuclear Safety &
Regulatory Affairs

APPARENT VIOLATION

Failure of design control measures to adequately verify or check that the safety-related diesel generator control air instrument and controls systems remained functional during a LOOP

- Recognize the manufacturer's design was in error
- RBS identified the manufacturer's design error
- Old design error, generic to the industry
- Disagree with the wording
  - Manufacturer's design measures did not verify that the diesel would perform its safety function with loss of control air

APPARENT VIOLATION

Failure to maintain diesel generator operability

- Agree that Part 21 impacted diesel operability
- A second violation is not warranted given the generic nature of the manufacturer design error
- Operator procedure guidance
  - Operator attends diesel during emergency operation
  - Procedures recognize need for bottled air
- As found leakage rate supports time needed to connect air bottles

APPARENT VIOLATION

Failure to document, report and promptly correct a significant condition adverse to quality

- Disagree with the violation as worded
- Opportunity in early 1990 was viewed as an enhancement to provide air for engine shutdown and control system indications.
- The design error was not identified at that time.
- Documentation, reporting and corrective action could not be expected without discovery and recognition of the condition

APPARENT VIOLATION

Failure to document, report and promptly correct a significant condition adverse to quality (cont.)

- Later in 1990 we recognized that non-emergency trips were reinstated below the lockout set point (150 psig, later changed to 120 psig)
- The significance of this condition was not recognized
- It was not recognized that this condition would cause a diesel trip
- Corrective action did not completely address the issue

APPARENT VIOLATION

Failure of pre-operational and operational testing to assure that the EDG's would perform satisfactorily in service

- Vendor Qualification or Pre-Operational Testing did not fully assure that the control logic would perform as intended with degrading control air pressure
- Disagree with the violation of SR 3.8.1.13 (24 hour run)
  - This surveillance test should be run with diesel trips in force. This requires control air pressure (RG 1.108)

SAFETY SIGNIFICANCE

- Recognize importance of EDGs to safety
- EDGs would have started and run for a significant period without operator action
- EDGs would have performed intended safety function with operator action
- Low actual / potential safety consequences
  - Non-risk significant

REGULATORY SIGNIFICANCE

- Comprehensive corrective action to address root cause
- Condition not programmatic
- Condition was a generic design error
- Condition not repetitive or willful

CIVIL PENALTY MITIGATION / DISCRETION FACTORS

- Civil Penalty Mitigation
  - Identification Credit
  - Age of the Issue
    - Original design issue / pre-operation
    - Prior opportunity to identify / 1990
  - Corrective Actions Comprehensive
- Discretion
  - Issue applicable to other plants / Part 21 issued
  - Age of issue / original design error

SEVERITY LEVEL

- Condition does not meet criteria for Severity Level I violation- No actual event
- Condition does not meet criteria for Severity Level II violation
  - EDGs would have performed intended safety function for a period of time
  - Time available for actions by operators to maintain diesel function
    - As found leakage tests demonstrated adequate time to perform actions
  - Operators dispatched to the EDGs routinely
  - Procedures in place to attend diesel operation and to connect air bottles

SEVERITY LEVEL(cont.)

- If NRC decides a violation is warranted, only one severity level III violation should be considered for the manufacturer's design which was in error
- Three examples:
  - Inadequate design
  - Failure to recognize significance of un-bypassing non-emergency trips
  - Inadequate vendor qualification testing

SUMMARY

- No civil penalty is warranted
  - Identification
  - Corrective action credit
- Discretion is warranted due to special circumstances
  - Generic design issue / Part 21
  - Age of issue
- Conclusion
  - No violation should be cited
  - If violation cited, Level III - no civil penalty

Closing Remarks

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