August 29, 1985

Docket No. 50-271

LICENSEE: Vermont Yankee Nuclear Power Corporation

FACILITY: Vermont Yankee Nuclear Power Station

SUBJECT: MEETING SUMMARY - FIRE PROTECTION - APPENDIX R - III.G EXEMPTION REQUESTS

A meeting was held on July 16, 1985 in Bethesda, Maryland between representatives of Vermont Yankee and the NRC staff to discuss the licensee's Appendix R compliance and circuit separation evaluations. A list of the attendees is enclosed (Enclosure 1). A copy of the licensee's presentation material is also enclosed (Enclosure 2).

The licensee provided: an overview of its Appendix R methodology, a discussion of its safe shutdown analysis and the associated electrical circuitry of concern, and discussion of its exemption requests. The licensee stated they would like the staff to complete its review by the end of September 1985 so that the schedule and scope of fire protection work at the upcoming refueling and maintenance outage could be finalized.

The details of the exemption requests were discussed and the staff identified information that was required to enable it to complete its review. The licensee stated the requested information would be provided to the staff by late August 1985.

Original signed by/

Robert A. Hermann, Project Manager
Operating Reactors Branch #2
Division of Licensing

Enclosures:
As stated

cc w/enclosures:
See next page

DISTRIBUTION

Docket File	OELD	RHermann
NRC PDR	ELJordan	VRooney
Local PDR	BGrimes	JStang
ORB#2 Reading	ACRS (10)	SWest
ORB#2 Mtg File	NRC Participants	
DVassallo	RHermann	

DL:ORB#2	DL:ORB#2	DL:ORB#2
RHermann:ajs	VRooney	DVassallo
08/29/85	08/29/85	08/29/85

Mr. R. W. Capstick
Vermont Yankee Nuclear Power Corporation
Vermont Yankee Nuclear Power Station

cc:

Mr. W. F. Conway
President & Chief Executive Officer
Vermont Yankee Nuclear Power Corp.
R. D. 5, Box 169
Ferry Road
Brattleboro, Vermont 05301

Mr. Donald Hunter, Vice President
Vermont Yankee Nuclear Power Corp.
1671 Worcester Road
Framingham, Massachusetts 01701

New England Coalition on
Nuclear Pollution
Hill and Dale Farm
R. D. 2, Box 223
Putney, Vermont 05346

Mr. Walter Zaluzny
Chairman, Board of Selectman
Post Office Box 116
Vernon, Vermont 05345

J. P. Pelletier, Plant Manager
Vermont Yankee Nuclear Power Corp.
Post Office Box 157
Vernon, Vermont 05354

Raymond N. McCandless
Vermont Division of Occupational
& Radiological Health
Administration Building
10 Baldwin Street
Montpelier, Vermont 05602

Honorable John J. Easton
Attorney General
State of Vermont
109 State Street
Montpelier, Vermont 05602

John A. Ritscher, Esquire
Ropes & Gray
225 Franklin Street
Boston, Massachusetts 02110

W. P. Murphy, Vice President &
Manager of Operations
Vermont Yankee Nuclear Power Corp.
R. D. 5, Box 169
Ferry Road
Brattleboro, Vermont 05301

Mr. Gerald Tarrant, Commissioner
Vermont Department of Public Service
120 State Street
Montpelier, Vermont 05602

Public Service Board
State of Vermont
120 State Street
Montpelier, Vermont 05602

Vermont Yankee Decommissioning
Alliance
Box 53
Montpelier, Vermont 05602-0053

Resident Inspector
U. S. Nuclear Regulatory Commission
Post Office Box 176
Vernon, Vermont 05354

Vermont Public Interest
Research Group, Inc.
43 State Street
Montpelier, Vermont 05602

Thomas A. Murley
Regional Administrator
Region I Office
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, Pennsylvania 19406

ENCLOSURE 1

VERMONT YANKEE APPENDIX R MEETING

ATTENDANCE LIST FOR JULY 16, 1985

Name	Affiliation
Bill Hinkle	Yankee Atomic
Andrew C. Kadak	Yankee Atomic
Sam Watson	Bechtel/SERCH
Wade Larson	EPM
Robert A. Hermann	NRC
John Stang	NRC
Ari Krasopoulos	NRC
Steven West	NRC
Ralph N. Moschella	Yankee Atomic
Ross Howe	EPM
Paul R. Johnson	Yankee Atomic
Dan Yasi	Yankee Atomic
Dennis Girroir	Vermont Yankee
Edward A. Sawyer	Yankee Atomic
David Phillips	Vermont Yankee
Rick Ludwick	Vermont Yankee
Victor Benaroya	NRC

ENCLOSURE 2

VERMONT YANKEE
PRESENTATION
FOR
MEETING WITH NRR TO DISCUSS
APPENDIX R - III.G EXEMPTION REQUESTS

JULY 16, 1985

INTRODUCTION

AGENDA FOR
VY/NRR MEETING TO DISCUSS
APPENDIX R - III.G EXEMPTION REQUESTS

TUESDAY, JULY 16, 1985

10:00 A.M. - 3:00 P.M.

TIME	TOPIC	SPEAKERS
10:00-10:15	INTRODUCTION - PURPOSE/GOAL OF MEETING, OVERVIEW OF AGENDA	A. KADAK
10:15-11:15	RESURVEY METHODOLOGY - DIVISION OF PLANT INTO FIRE AREAS/ZONES, SAFE SHUTDOWN CAPABILITY ANALYSIS	W. LARSON
11:15-12:15	RESURVEY RESULTS - REQUIRED EXEMPTIONS	R. MOSCHELLA
12:15-1:15	LUNCH	
1:15-1:45	RESURVEY RESULTS - ENGINEERING MODIFICATIONS	R. MOSCHELLA
1:45-2:00	VY PLAN FOR APPENDIX R CLOSEOUT - TASKS, SCHEDULE	W. HINKLE
2:00-3:00	NRR COMMENTS/QUESTIONS - EXEMPTIONS, VY CLOSEOUT PLAN	R. HERMANN S. WEST

RESURVEY METHODOLOGY

PURPOSE

PROVIDE DESCRIPTION OF:

- o APPENDIX R COMPLIANCE EVALUATION
- o CIRCUIT SEPARATION EVALUATION

APPENDIX R COMPLIANCE EVALUATION

- o PERFORMED BY MULTIPLE ORGANIZATIONS
- o LOGICAL SCOPE SPLITS
- o MINIMIZED DURATIONS
- o MANAGED BY YANKEE FRAMINGHAM

PROCESS

- DETAILED AND DOCUMENTED
- SYSTEM BY SYSTEM
- COMPONENT BY COMPONENT
- WIRE BY WIRE
- RACEWAY BY AREA

VERMONT YANKEE

- o CLASSICAL BWR REACTOR BUILDING
- o ESSENTIALLY ONE FIRE AREA
- o EXISTING CIRCUIT SEPARATION GOOD TO EXCELLENT

EVALUATION METHODOLOGY

- SIMILAR TO OTHER BWRs
- DIVIDED REACTOR BUILDING BY ELEVATION

REACTOR BUILDING

- REQUIRED DEVELOPMENT OF SEPARATION ZONES FOR EVALUATION
- USED TO SEPARATE FIRE ZONES

SEPARATION ZONES

- PROVIDES SIGNIFICANT PHYSICAL SEPARATION
- LOW COMBUSTIBLE LOADING
- CONCEPT USED ON OTHER BWRs

- ESTABLISHED BASIS FOR DIVISION I AND II SEPARATION
- USED CLASSICAL BWR SYSTEMS ENGINEERING APPROACH

APPENDIX R METHODOLOGY

- DEFINE FIRE AREAS/ZONES
- DEFINE SAFETY FUNCTIONS/PERFORMANCE OBJECTIVES
- IDENTIFY SAFE SHUTDOWN SYSTEMS
- IDENTIFY VITAL EQUIPMENT AND COMPONENTS

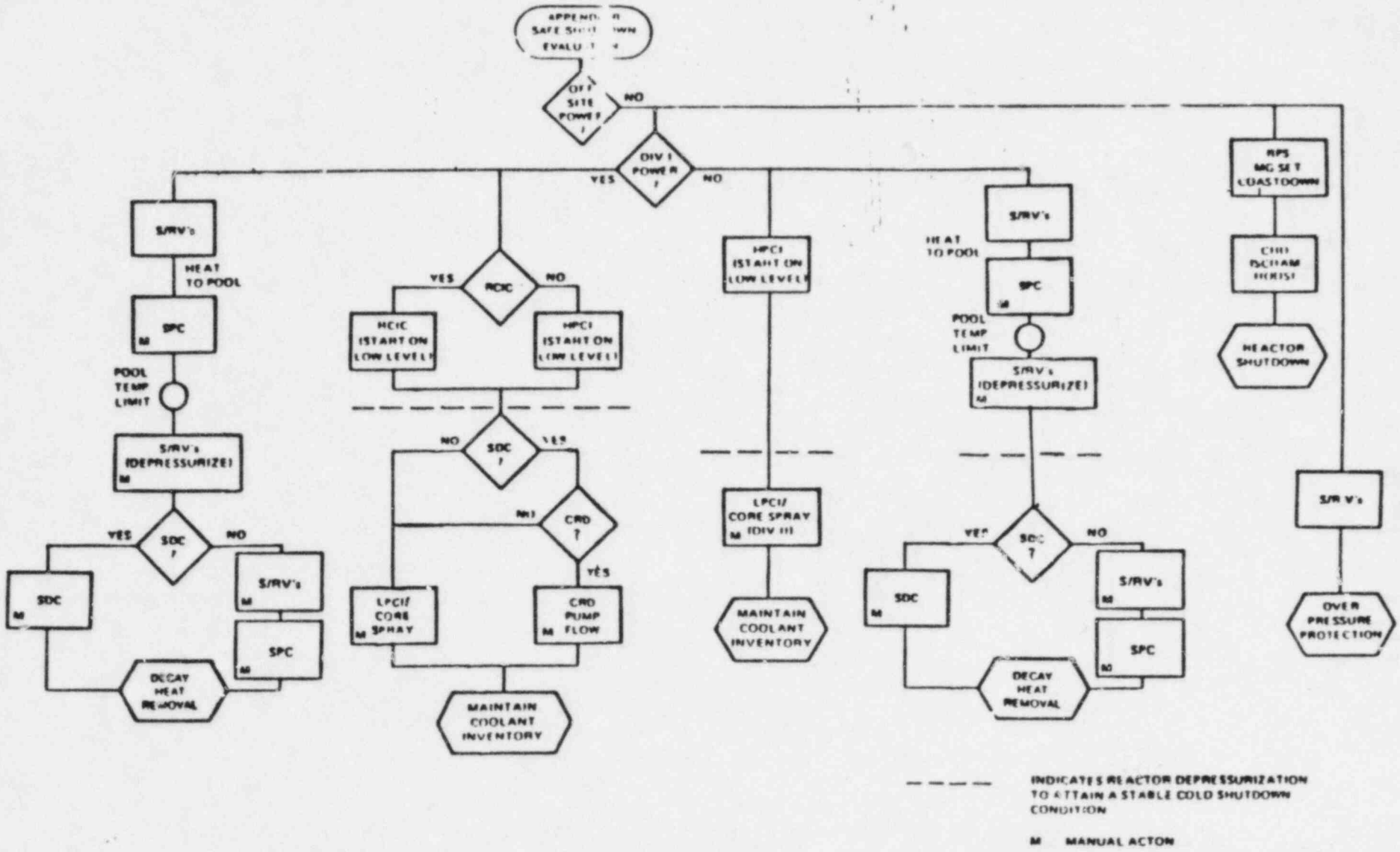
APPENDIX R METHODOLOGY (CONT.)

- o IDENTIFY CIRCUITS ASSOCIATED WITH VITAL EQUIPMENT AND COMPONENTS
  - POWER CIRCUITS
  - CONTROL CIRCUITS
- o EVALUATE ASSOCIATED CIRCUITS

APPENDIX R METHODOLOGY (CONT.)

- TRACE ROUTING OF CIRCUITS
- IDENTIFY RACEWAY LOCATIONS OF INTEREST
- DETERMINE IF REDUNDANT HOT SHUTDOWN FUNCTIONS ARE PRESENT IN THE SAME FIRE AREA/FIRE ZONES
- IDENTIFY LOCATIONS IN WHICH CIRCUITS, (INCLUDING ASSOCIATED CIRCUITS) OF SYSTEMS REQUIRED FOR HOT SHUTDOWN FROM REDUNDANT DIVISIONS, HAVE LESS THAN 20 FEET OF HORIZONTAL SEPARATION

VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION

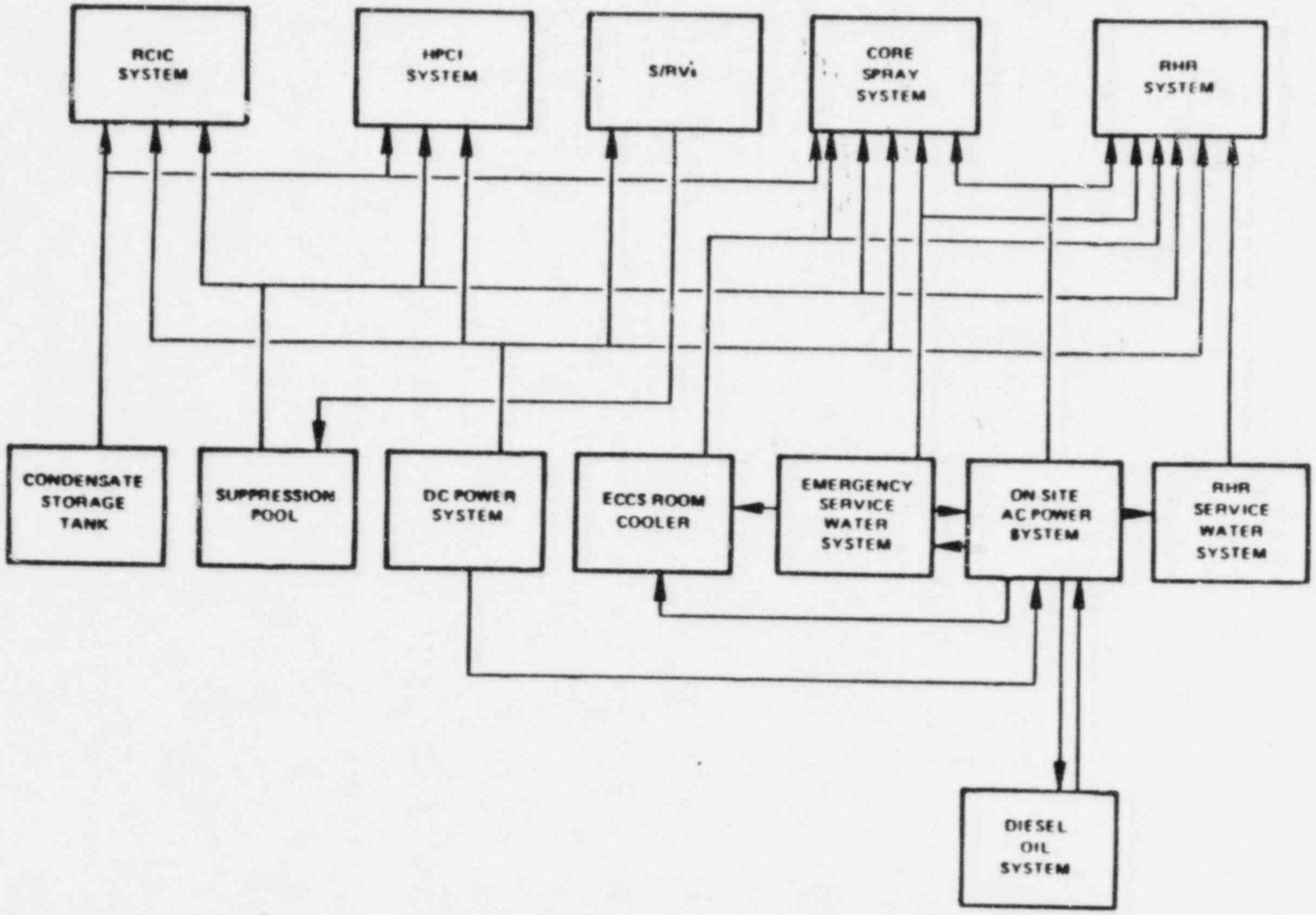


SAFE SHUTDOWN SEQUENCE FOR APPENDIX R SECTION III.G EVALUATION —
VERMONT YANKEE NUCLEAR POWER PLANT
OFFSITE POWER NOT AVAILABLE

FIGURE 2-1

P147

VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION



REQUIRED AUXILIARY SUPPORT SYSTEM INTERACTION WITH SAFE SHUTDOWN SYSTEMS

FIGURE 2-2

P147

APPENDIX R SAFE SHUTDOWN ANALYSIS DETAIL

- o SAFE SHUTDOWN SEQUENCE DIAGRAMS (SECTION 2)
  - IDENTIFY MINIMUM SAFE SHUTDOWN EQUIPMENT (TABLE 2-2)
  - IDENTIFY SPURIOUS CANDIDATE COMPONENTS
- o ELECTRICAL ENGINEERING ANALYSIS
  - IDENTIFY MINIMUM SET OF SAFE SHUTDOWN CABLE
  - LOCATE EQUIPMENT AND CABLES IN THEIR FIRE AREAS AND FIRE ZONES

APPENDIX R SAFE SHUTDOWN ANALYSIS DETAIL (CONT.)

- o REVIEW PLANT PHYSICAL ARRANGEMENT (SECTION 3)
  - LOCATE RATED PHYSICAL BARRIERS
  - LOCATE MAJOR SAFE SHUTDOWN EQUIPMENT
  - IDENTIFY FIRE AREA/ZONE DIVISION OF PLANT

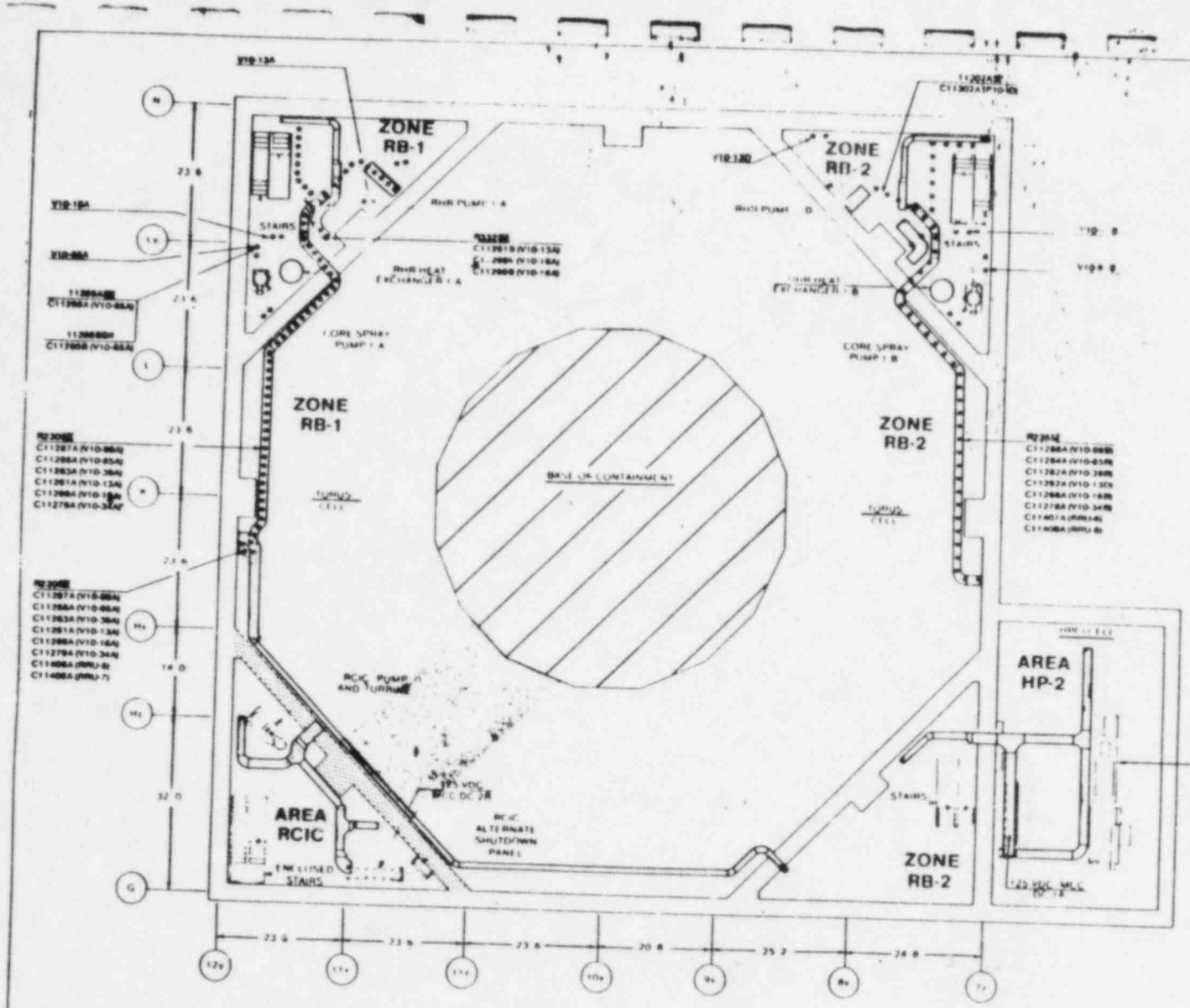
APPENDIX R SAFE SHUTDOWN ANALYSIS DETAIL (CONT.)

- DETERMINE CONSEQUENCES OF FIRE DAMAGE TO SAFE SHUTDOWN CABLES AND EQUIPMENT LOCATED IN ONE FIRE AREA/ZONE (SECTION 4)

- SATISFY ALL SAFE SHUTDOWN FUNCTIONS BY DEMONSTRATING SURVIVAL OF AT LEAST ONE TRAIN OF SAFE SHUTDOWN EQUIPMENT

ASSOCIATED CIRCUITS OF CONCERN

- o COMMON POWER SUPPLY
- o COMMON ENCLOSURE
- o SPURIOUS OPERATION



NOTES

1) Drawing shows routing of cables associated with minimum equipment required for hot and cold shutdown.

2) Only cable no C11289C is shown routed for V10-183 because prefulate fire damage to cable nos C11289A and C11289B could not spuriously open this normally closed valve.

3) Cables associated with valves V10-17 and V10-18 are used only for cold shutdown.

4) Only cable no C11312C is shown routed for V10-52 because prefulate fire damage to cable nos. C11312B, C11312A, C11312F and C11312G could not spuriously open this normally closed valve.

5) Only cable no C11313B is shown routed for V10-66 because prefulated fire damage to cable nos. C11313A and C11313C could not spuriously open this valve.

6) Raceways containing safe shutdown cables that are routed through separation zones will be provided with one hour barriers where they are located inside separation zones.

REFERENCE DRAWINGS

G191148 REV 9
G191329 REV 11
G191330 REV 13
G191331 REV 10

LEGEND

- REACTOR BUILDING FIRE BARRIER, 3 HR RATING
- • • RHR, RHR SW (DIV I)
- • • • RHR, RHR SW (DIV II)
- SEPARATION ZONE
- CONTAINMENT

REV NO	DATE	DESCRIPTION	DRWN BY	REV'D BY	APPROVED
1	8/85	ISSUED FOR REPORT	VBF		

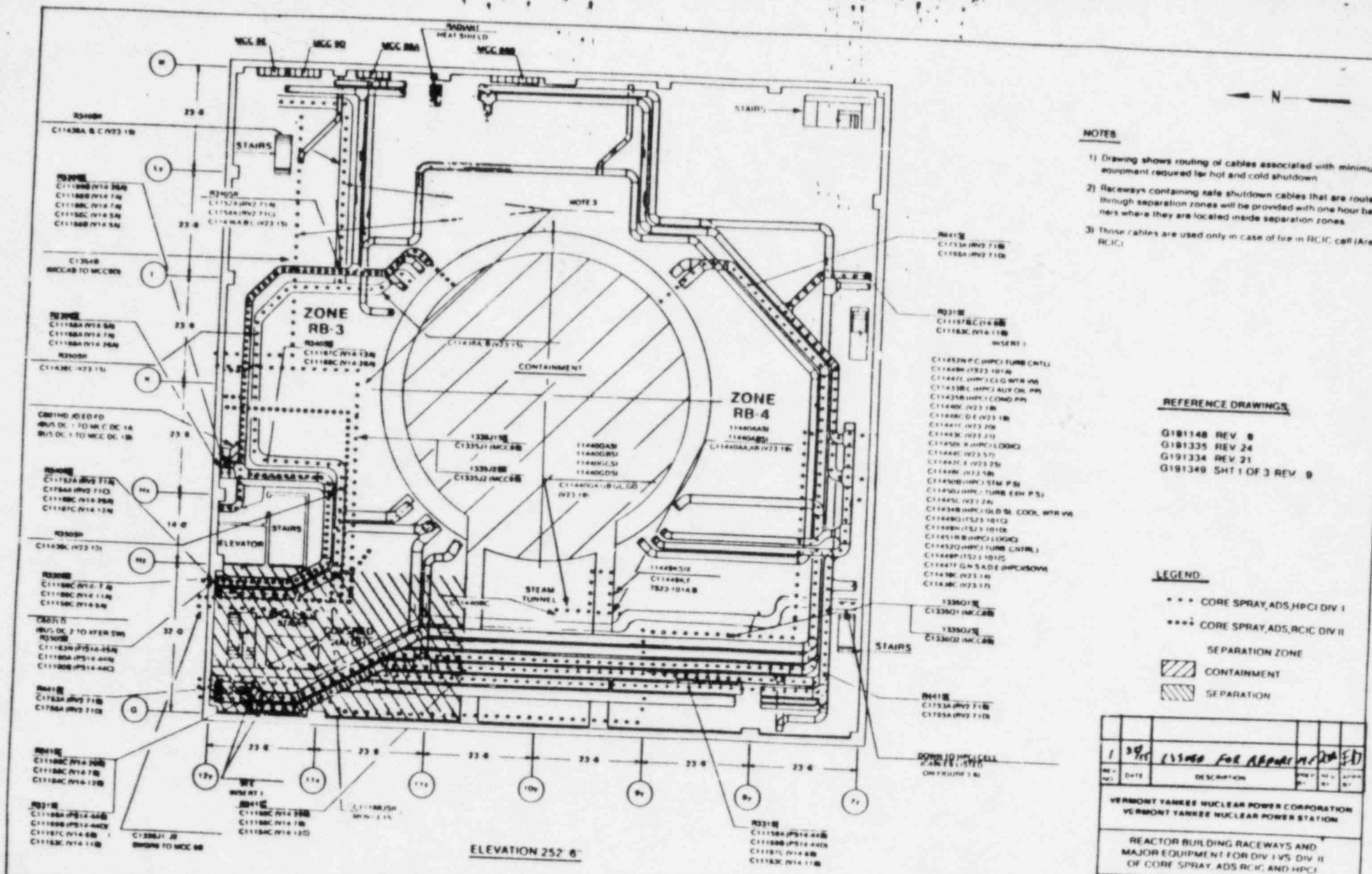
VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION

REACTOR BUILDING RACEWAYS AND MAJOR EQUIPMENT FOR DIV I VS. DIV II OF RHR, RHR SERVICE WATER, AND SERVICE WATER

Engineering Planning and Management, Inc.

FIGURE NO. 3-2

ELEVATION 213'-9"



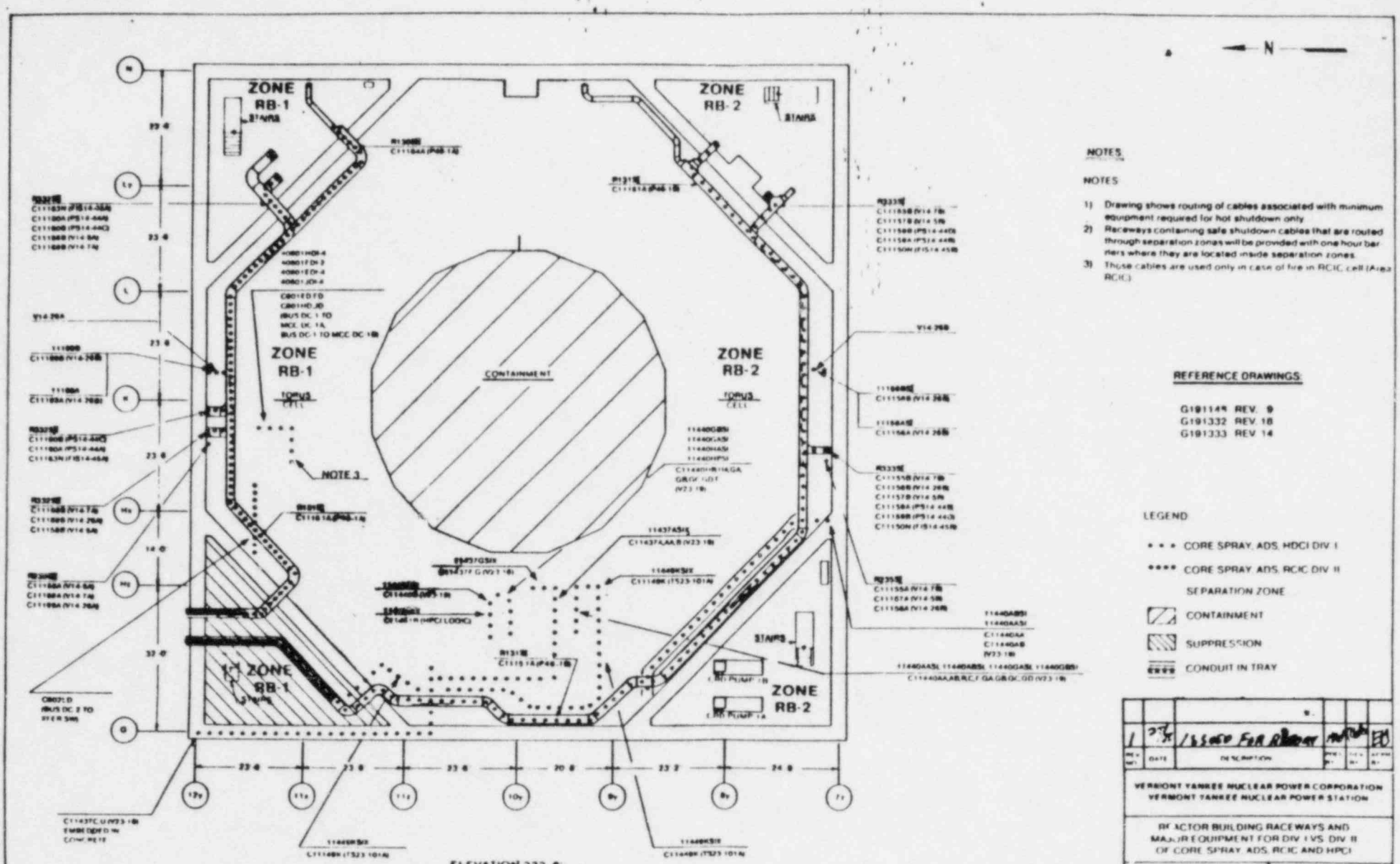
NO.	DATE	DESCRIPTION			
1	3/9/95	ISSUED FOR REVIEW	WT	DM	ED

VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION

REACTOR BUILDING RACEWAYS AND MAJOR EQUIPMENT FOR DIV I VS DIV II OF CORE SPRAY, ADS, RCIC AND HPCI

Engineering Planning and Management, Inc.

FIGURE NO. 3.8



NOTES

NOTES

1) Drawing shows routing of cables associated with minimum equipment required for hot shutdown only.
2) Raceways containing safe shutdown cables that are routed through separation zones will be provided with one hour barriers where they are located inside separation zones.
3) Those cables are used only in case of fire in RCIC cell (Area RCIC).

REFERENCE DRAWINGS:

G191149 REV. 9
G191332 REV. 18
G191333 REV. 14

LEGEND

- • • • CORE SPRAY, ADS, HPCI DIV I
- • • • • CORE SPRAY, ADS, RCIC DIV II
- SEPARATION ZONE
- CONTAINMENT
- SUPPRESSION
- CONDUIT IN TRAY

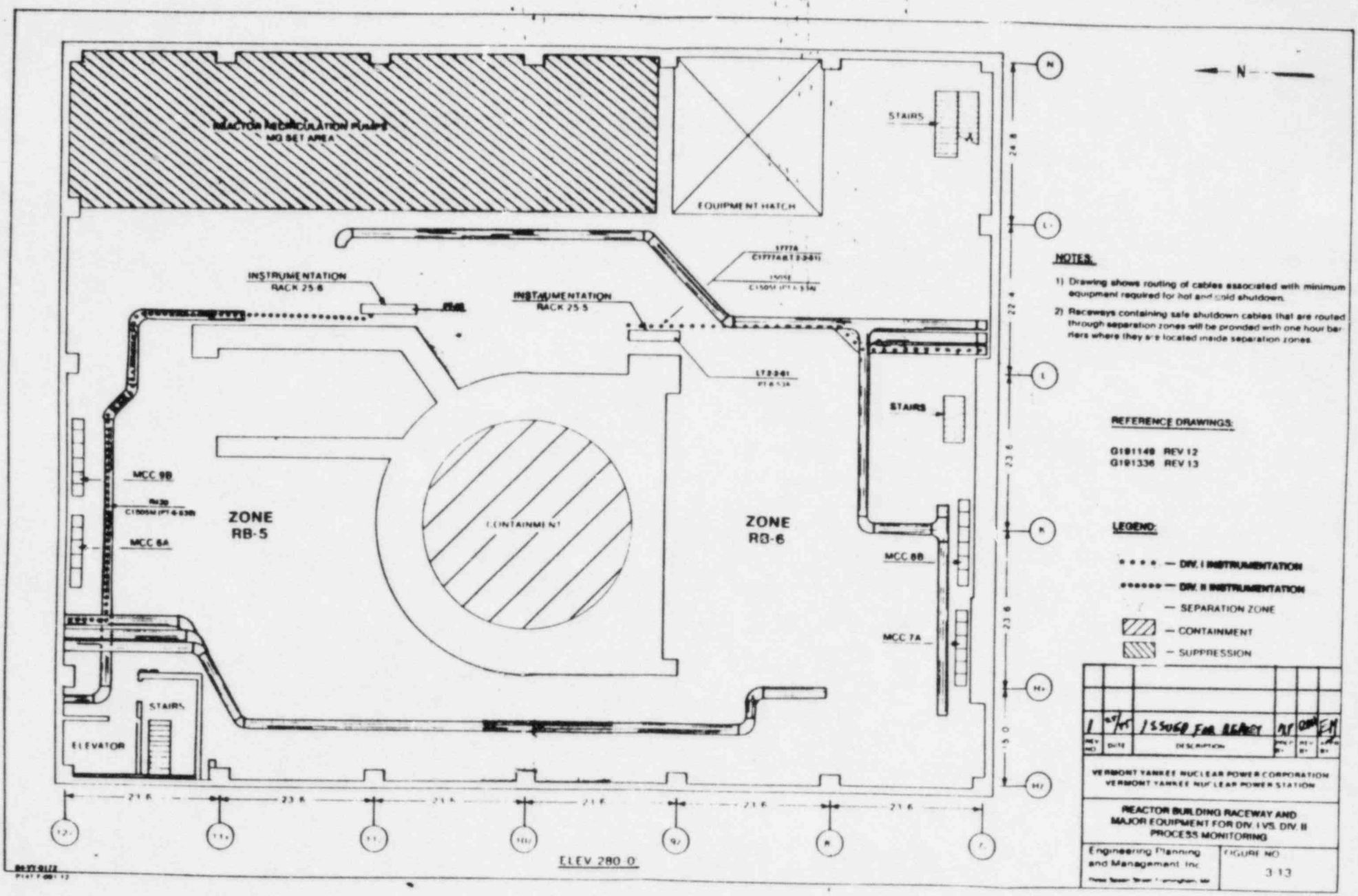
1	2/84	ISSUED FOR REVIEW			EB
REV. NO.	DATE	DESCRIPTION			APPD. BY

VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION

REACTOR BUILDING RACEWAYS AND MAJOR EQUIPMENT FOR DIV I VS. DIV II OF CORE SPRAY, ADS, RCIC AND HPCI

Engineering Planning and Management, Inc.

FIGURE NO. 3-7


REACTOR RECIRCULATION PUMP MG SET AREA
EQUIPMENT HATCH
STAIRS
INSTRUMENTATION RACK 25 6
INSTRUMENTATION RACK 25 5
MCC 9B
MCC 6A
ZONE RB-5
CONTAINMENT
ZONE RB-6
MCC 8B
MCC 7A
STAIRS
ELEVATOR
21 6
23 6
ELEV 280 0
N
24 8
22 4
23 6
23 6
15 0
NOTES:
1) Drawing shows routing of cables associated with minimum equipment required for hot and cold shutdown.
2) Raceways containing safe shutdown cables that are routed through separation zones will be provided with one hour barriers where they are located inside separation zones.
REFERENCE DRAWINGS:
G191149 REV 12
G191336 REV 13
LEGEND:
— DIV. I INSTRUMENTATION
— DIV. II INSTRUMENTATION
— SEPARATION ZONE
— CONTAINMENT
— SUPPRESSION
1 ISSUED FOR AGENCY REV NO DESCRIPTION
VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION
REACTOR BUILDING RACEWAY AND MAJOR EQUIPMENT FOR DIV I VS. DIV II PROCESS MONITORING
Engineering Planning and Management Inc.
FIGURE NO 3.13

RESURVEY RESULTS - REQUIRED EXEMPTIONS

EXEMPTION NO. 1 - REACTOR BUILDING - TORUS AREA

III.G.2.B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

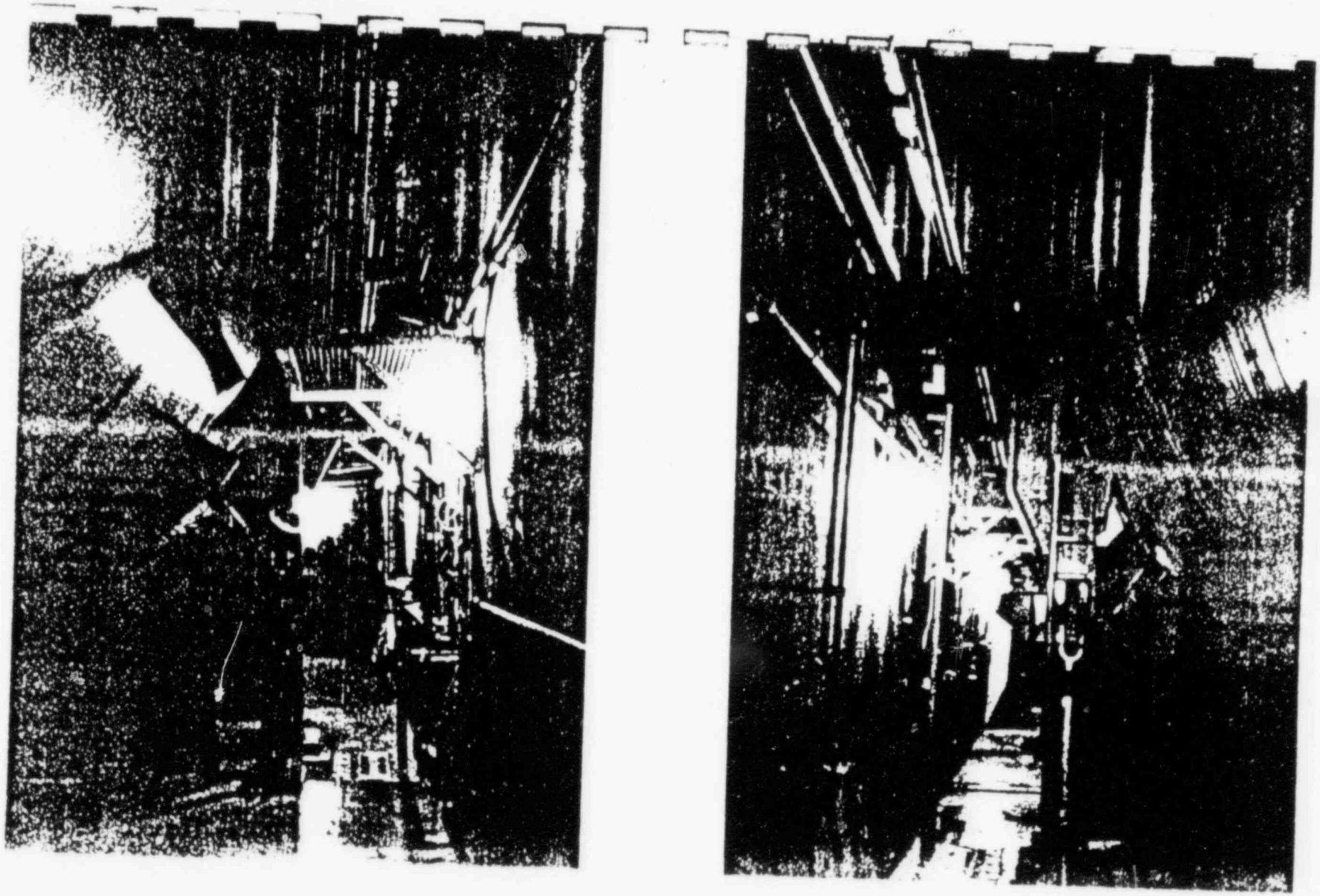
A) 20' SEPARATION AFTER MODIFICATIONS
B) DETECTION
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

REQUIREMENT FOR SUPPRESSION

BASIS:

LOW COMBUSTIBLES IN AREA PRESENCE OF DETECTION, EXTINGUISHERS AND FIRE HOSES



EXEMPTION REQUEST NO. 1

REACTOR BUILDING - TORUS AREA

SHOWING NO COMBUSTIBLES IN AREA

EXEMPTION NO. 2 - REACTOR BUILDING - RCIC ROOM

III.G.2.c REQUIREMENTS:

A) ENCLOSURE OF ONE DIVISION WITHIN A ONE HOUR RATED BARRIER

B) DETECTION

C) SUPPRESSION

VY CONFORMANCE:

A) ONLY DIVISION II CABLES WITHIN THE AREA

B) DETECTION

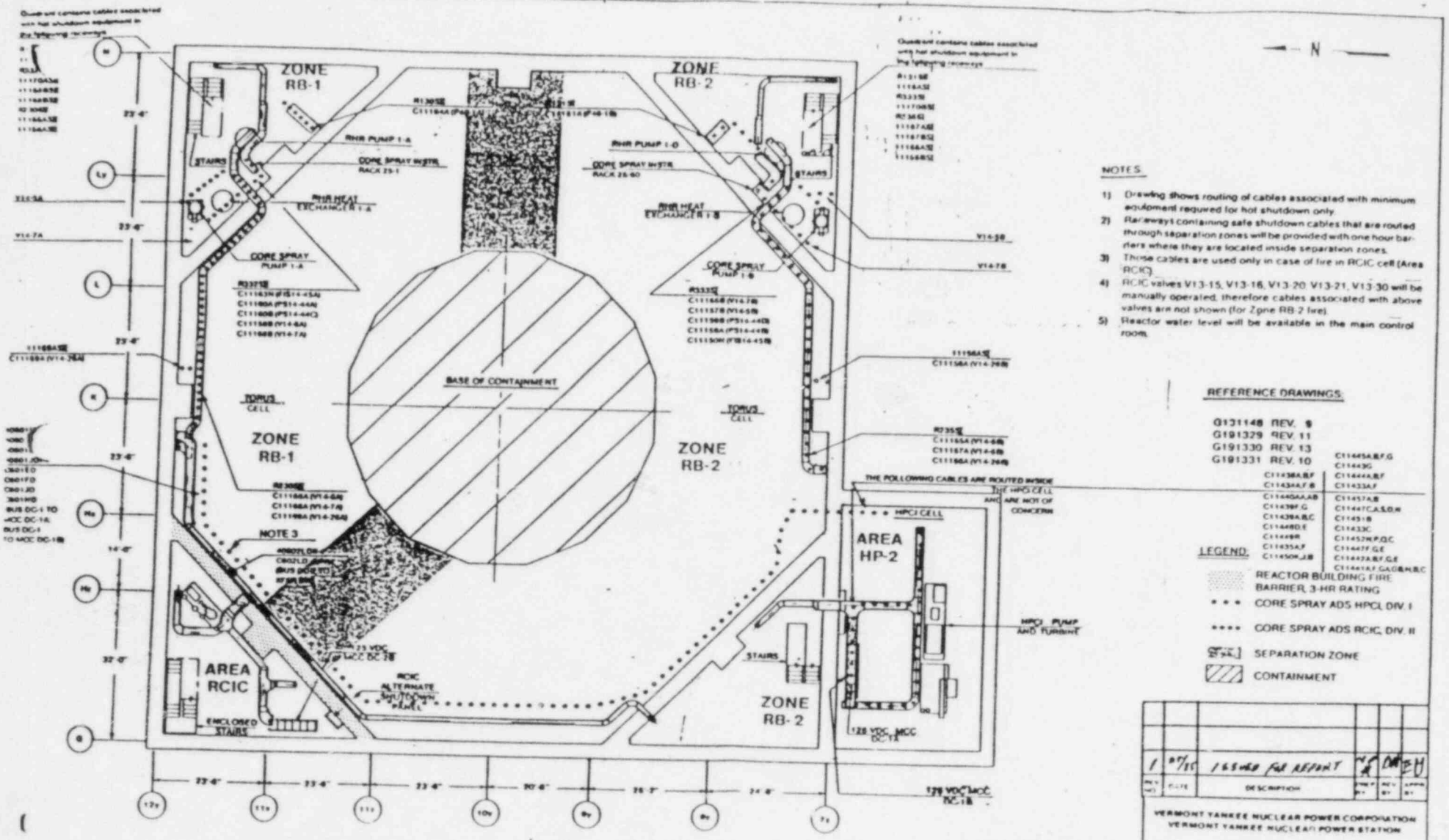
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

REQUIREMENT FOR SUPPRESSION

BASIS:

SUPPRESSION AVAILABLE DIRECTLY ABOVE. LOW COMBUSTIBLES IN AREA



ELEVATION 213'-8"

EXEMPTION REQUEST NO. 2

REACTOR BUILDING-RCIC AREA

EXEMPTION NO. 3 - REACTOR BUILDING - NORTHWEST CORNER ROOM, ELEV. 232'

III.G.2B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

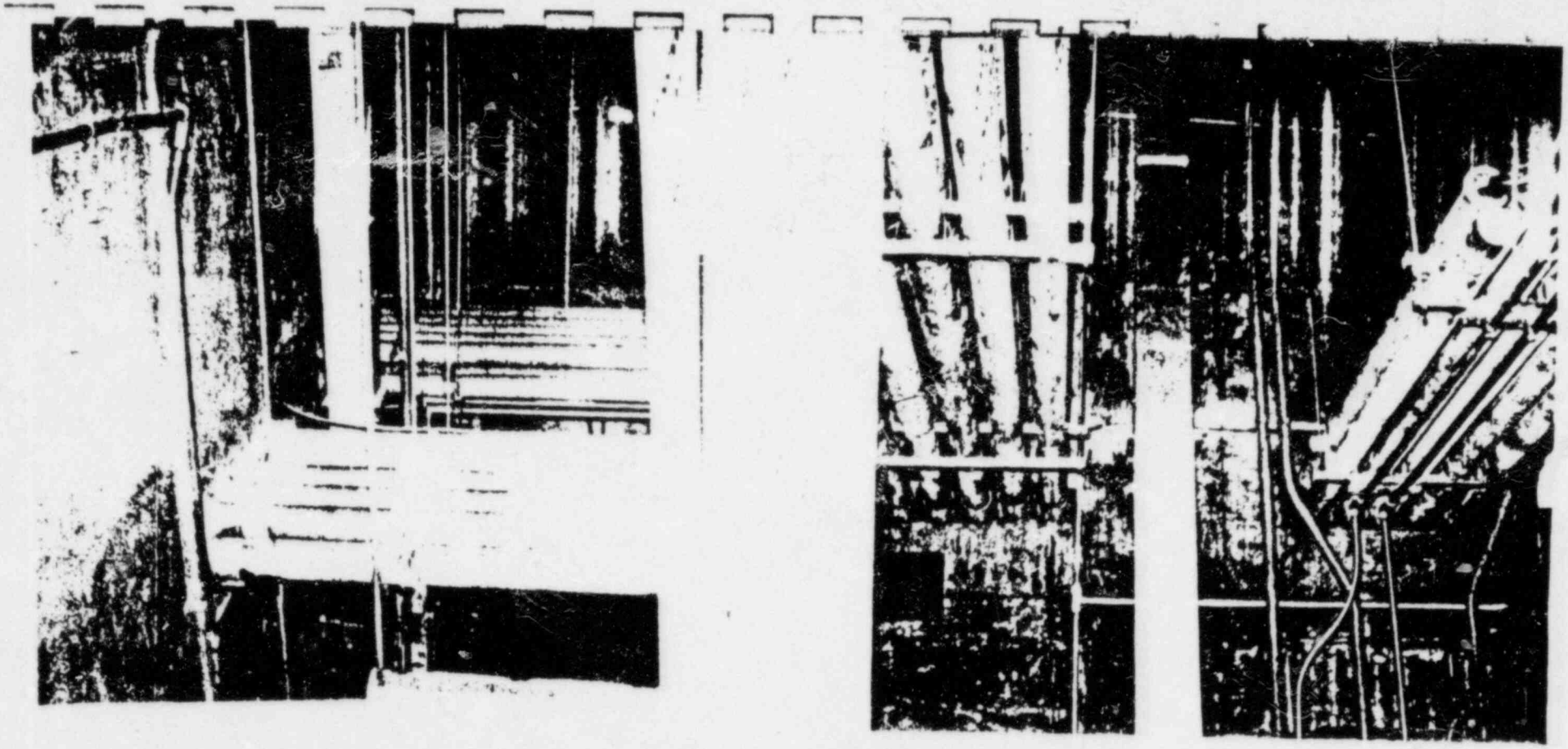
A) 20' SEPARATION NOT UNIFORMLY PROVIDED
B) DETECTION
C) SUPPRESSION

EXEMPTION REQUESTED:

REQUIREMENT FOR 20' SEPARATION

BASIS:

CABLES ARE IN RIGID STEEL CONDUITS THAT RUN THREE FEET APART FOR SEVERAL FEET AND THEN QUICKLY DIVERGE.



EXEMPTION REQUEST NO. 3

REACTOR BUILDING - NW CORNER ROOM-ELEV. 232'

SHOWING SEPARATION OF CONDUITS

EXEMPTION NO. 4 - REACTOR BUILDING - NORTHEAST AND SOUTHEAST CORNER ROOMS

III.G.2B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

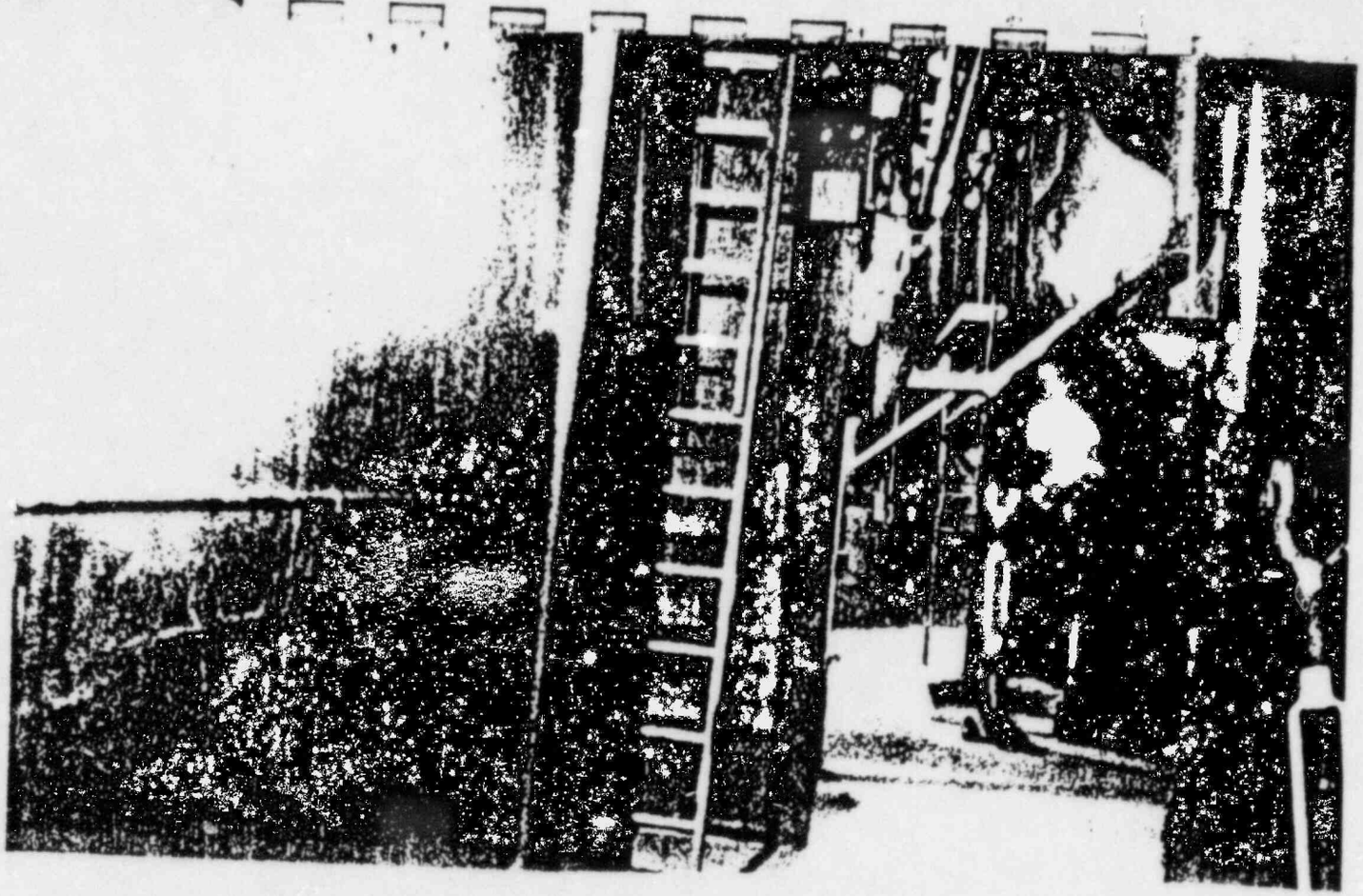
A) 20' FOOT SEPARATION
B) DETECTION
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

REQUIREMENT FOR SUPPRESSION

BASIS:

THERE ARE ESSENTIALLY NO COMBUSTIBLES TO SUPPORT THE PROPAGATION OF A FIRE BETWEEN THE ROOMS.



EXEMPTION REQUEST NO.4

REACTOR BUILDING-NE AND SE CORNER ROOMS

SHOWING NO COMBUSTIBLES BETWEEN

THE ROOMS

EXEMPTION NO. 5: - REACTOR BUILDING - NORTHEAST CORNER, ELEV. 252
- VITAL MCC's

III.G.2.B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

A) 18' SEPARATION WITH INTERVENING HEAT SHIELD
B) DETECTION NOT PROVIDED
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

A) REQUIREMENT FOR 20' SEPARATION
B) REQUIREMENT FOR DETECTION
C) REQUIREMENT FOR SUPPRESSION

BASIS:

18' SEPARATION IS PROVIDED WHICH INCLUDES A RADIANT HEAT SHIELD. NO INTERVENING COMBUSTIBLES IN AREA. PRESENCE OF FIRE EXTINGUISHERS AND HOSES.

EXEMPTION REQUEST NO. 5

REACTOR BUILDING-EAST SIDE-ELEV. 252

VITAL MCC AREA

SHOWING NO COMBUSTIBLES IN AREA

EXEMPTION NO. 6: - REACTOR BUILDING - NORTHWEST CORNER ELEV. 252'

III.G.2.B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

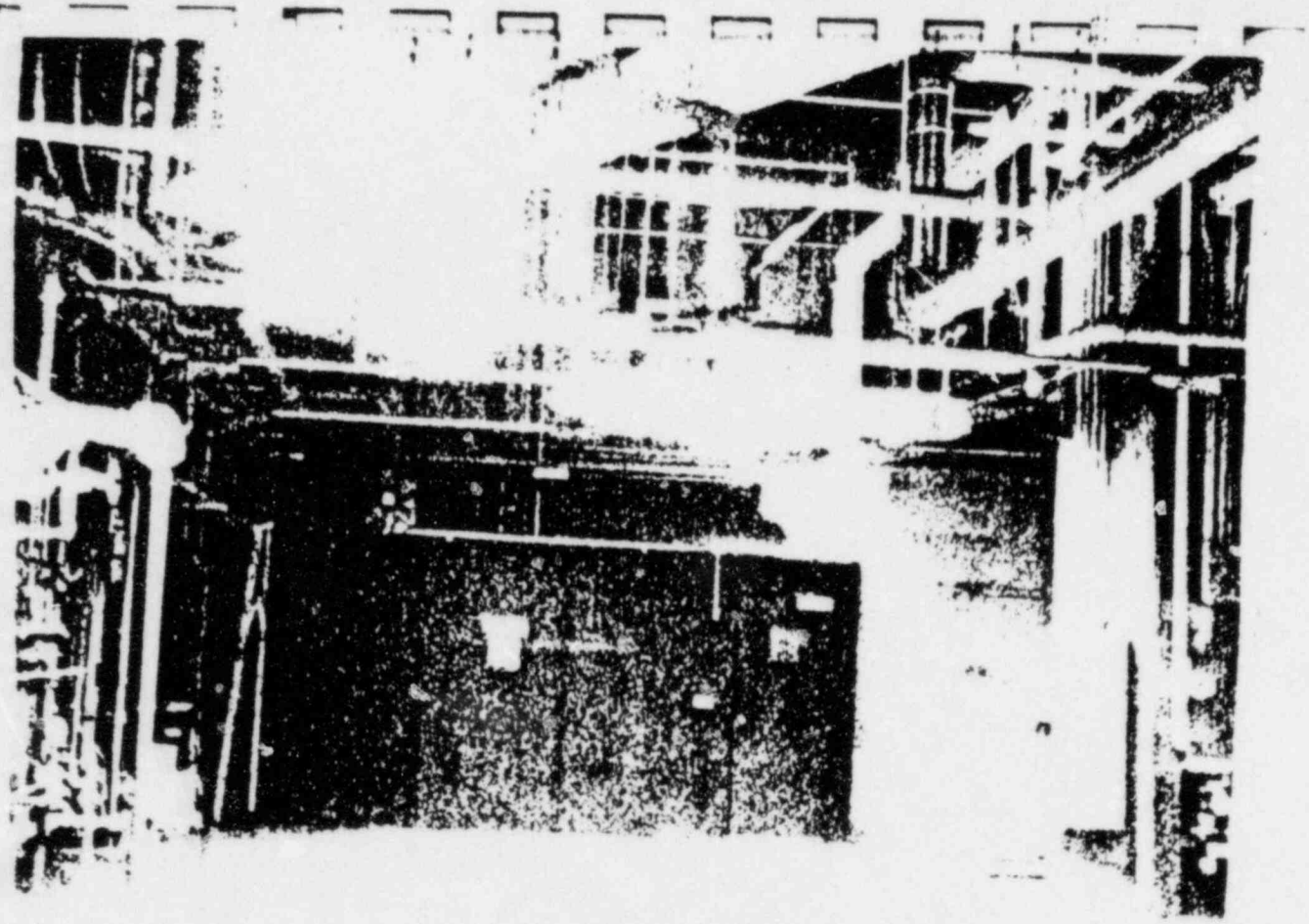
A) 18' SEPARATION
B) DETECTION
C) SUPPRESSION

EXEMPTION REQUESTED:

REQUIREMENT FOR 20' SEPARATION

BASIS:

18' SEPARATION IS PROVIDED. THERE IS VERY LOW COMBUSTIBLE LOADING IN THE AREA.



EXEMPTION REQUEST NO.6

REACTOR BUILDING-NW CORNER-ELEV. 252

SHOWING SEPARATION OF DIVISIONS

EXEMPTION NO. 7 - REACTOR BUILDING - EAST SIDE ELEV. 280'
- INSTRUMENT RACKS

III.G.2.B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

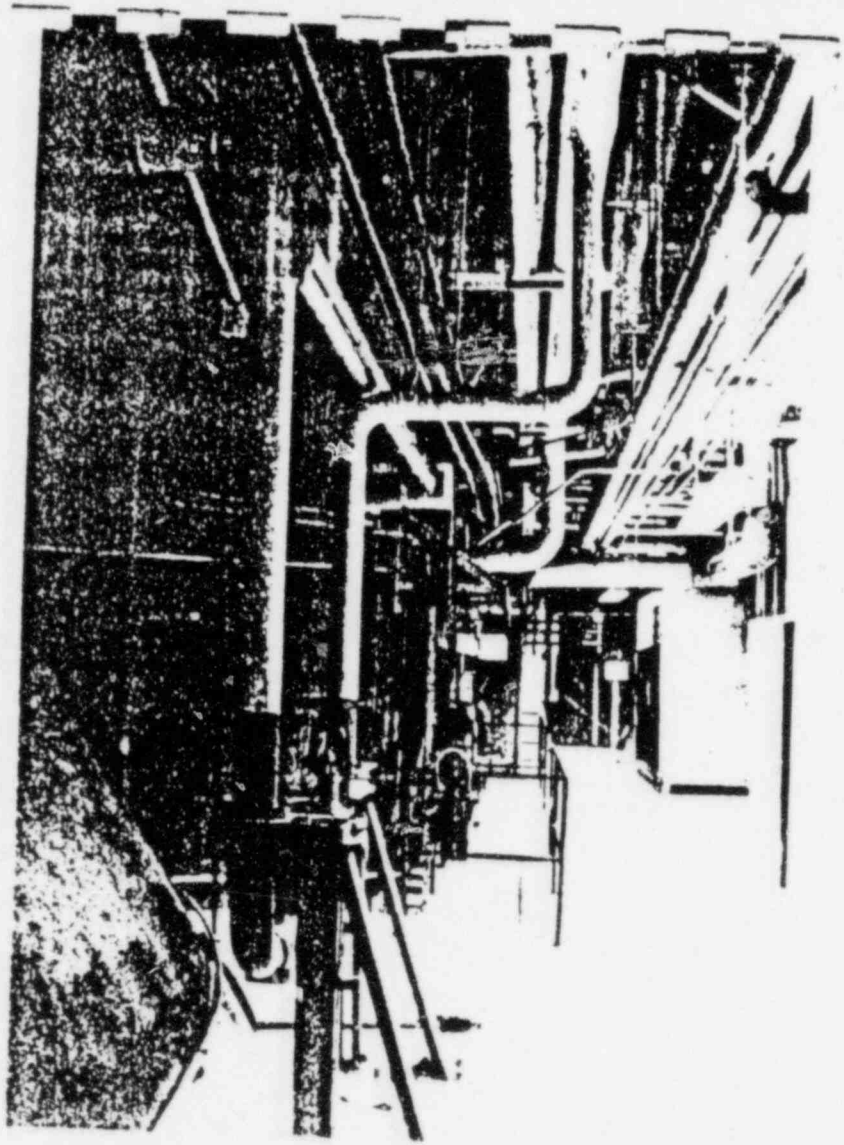
A) 20' SEPARATION
B) DETECTION NOT PROVIDED
C) SUPPRESSION NOT PROVIDED

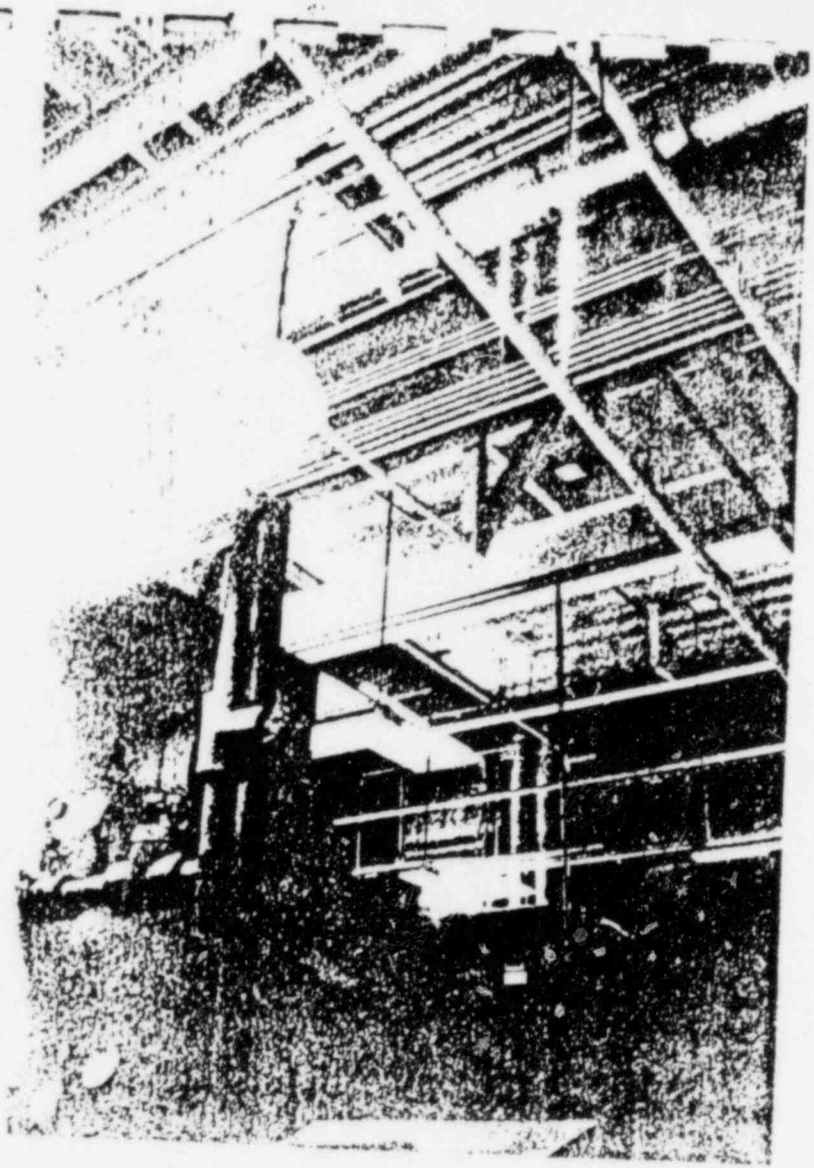
EXEMPTION REQUESTED:

REQUIREMENT FOR DETECTION
REQUIREMENT FOR SUPPRESSION

BASIS:

DETECTION AND SUPPRESSION ARE PROVIDED OVER THE MG SET AREA. OUTSIDE MG SET AREA THERE IS LOW COMBUSTIBLE LOADING IN THE AREA.





EXEMPTION REQUEST NO. 7

REACTOR BUILDING -EAST SIDE-ELEV. 280'

SHOWING NO COMBUSTIBLES IN AREA AND TRAY

TO BE STOPPED

EXEMPTION NO. 8 - REACTOR BUILDING - WEST SIDE, ELEV. 280'

III.G.2.B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

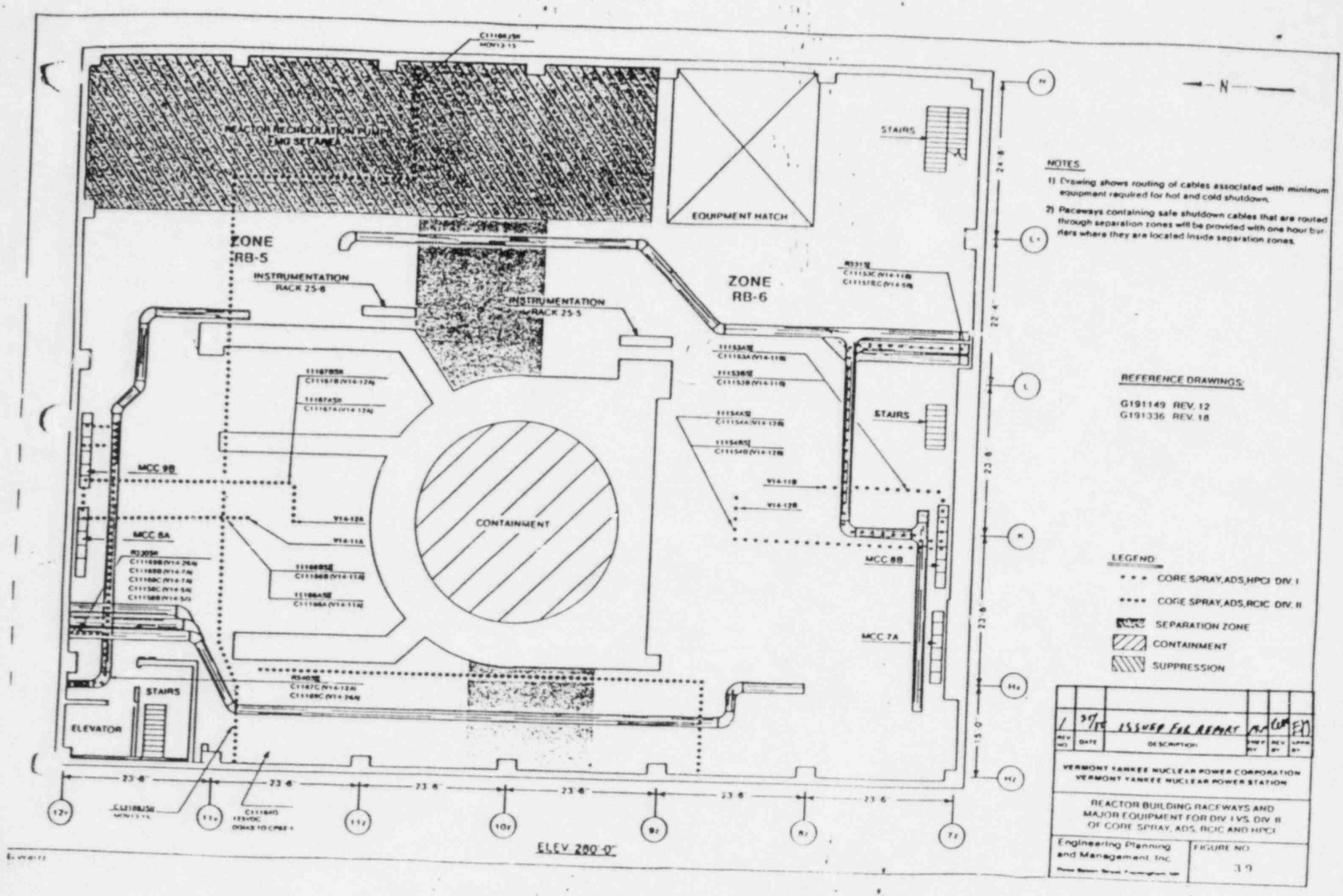
A) 20' SEPARATION
B) DETECTION NOT PROVIDED
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

REQUIREMENT FOR DETECTION
REQUIREMENT FOR SUPPRESSION

BASIS:

THERE IS LOW COMBUSTIBLE LOADING IN THE AREA. FIRE EXTINGUISHERS AND HOSES ARE PROVIDED.



EXEMPTION REQUEST NO. 8

REACTOR BUILDING-NW CORNER-ELEV. 280'

EXEMPTION NO. 9 - TURBINE BUILDING - RADWASTE BUILDING HALLWAY
- POWER CABLES

III.G.2.c REQUIREMENTS:

A) ENCLOSURE OF ONE DIVISION WITHIN A ONE HOUR RATED BARRIER
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

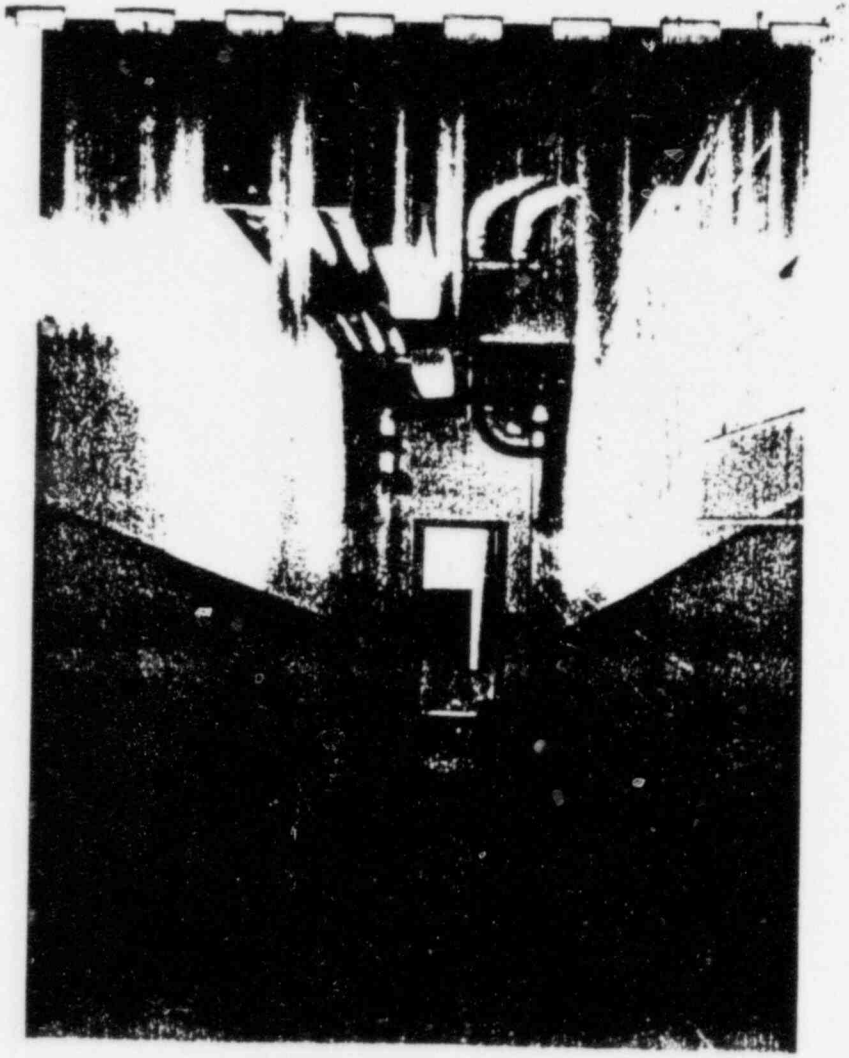
A) BOTH DIVISIONS ARE ENCLOSED WITHIN A ONE HOUR RATED BARRIER
B) DETECTION NOT PROVIDED
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

REQUIREMENT FOR DETECTION
REQUIREMENT FOR SUPPRESSION

BASIS:

BOTH DIVISIONS ARE ENCLOSED IN BARRIERS. NO INTERVENING COMBUSTIBLES IN AREA.



EXEMPTION REQUEST NO. 9

TURBINE BUILDING-RADWASTE BUILDING HALLWAY

SHOWING NO COMBUSTIBLES IN AREA

EXEMPTION NO. 10 - DIESEL FUEL OIL TRANSFER PUMP BUILDING

III.G.2.B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

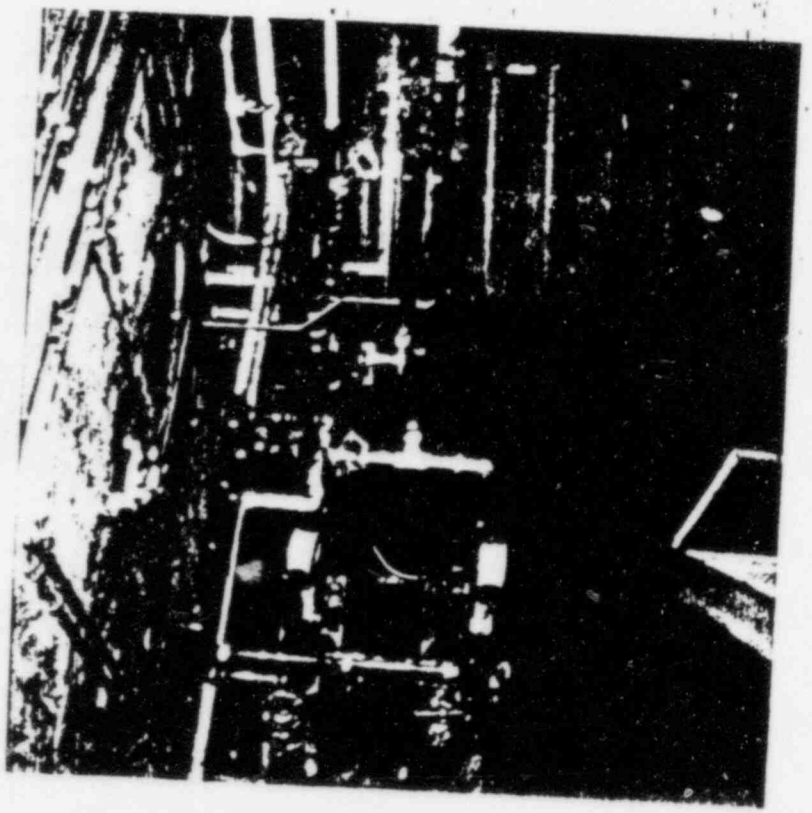
A) LESS THAN 20' SEPARATION
B) DETECTION
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

REQUIREMENT FOR 20' SEPARATION
REQUIREMENT FOR SUPPRESSION

BASIS:

BUILDING IS ISOLATED CONTAINING NO OTHER EQUIPMENT. ABSENCE OF IGNITION SOURCES.



EXEMPTION REQUEST NO. 10

DIESEL FUEL OIL TRANSFER PUMP BUILDING

SHOWING ISOLATION OF AREA

EXEMPTION NO. 11: CONDENSATE STORAGE TANK INSTRUMENT AREA

III.G.2.B REQUIREMENTS:

A) 20' SEPARATION
B) DETECTION
C) SUPPRESSION

VY CONFORMANCE:

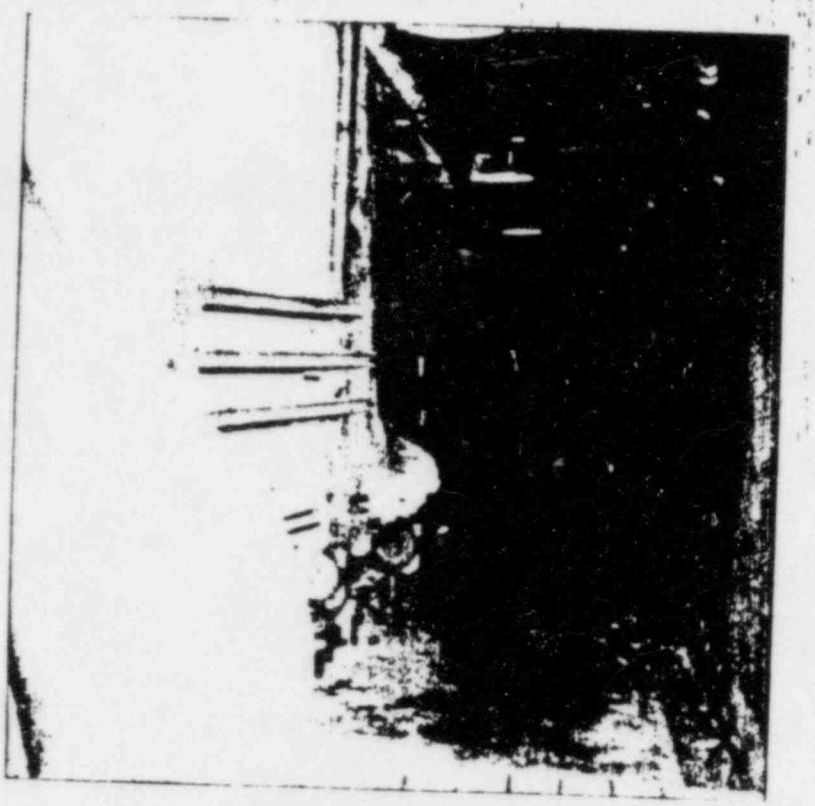
A) LESS THAN 20' SEPARATION
B) DETECTION NOT PROVIDED
C) SUPPRESSION NOT PROVIDED

EXEMPTION REQUESTED:

REQUIREMENT FOR 20' SEPARATION
REQUIREMENT FOR DETECTION
REQUIREMENT FOR SUPPRESSION

BASIS:

THERE ARE NO COMBUSTIBLES IN THE AREA. NO IGNITION SOURCES IN THE AREA.



EXEMPTION REQUEST NO. 11

CONDENSATE STORAGE TANK INSTRUMENT AREA

SHOWING SEPARATION OF EQUIPMENT AND NO COMBUSTIBLES IN AREA.

RESURVEY RESULTS - ENGINEERING MODIFICATIONS

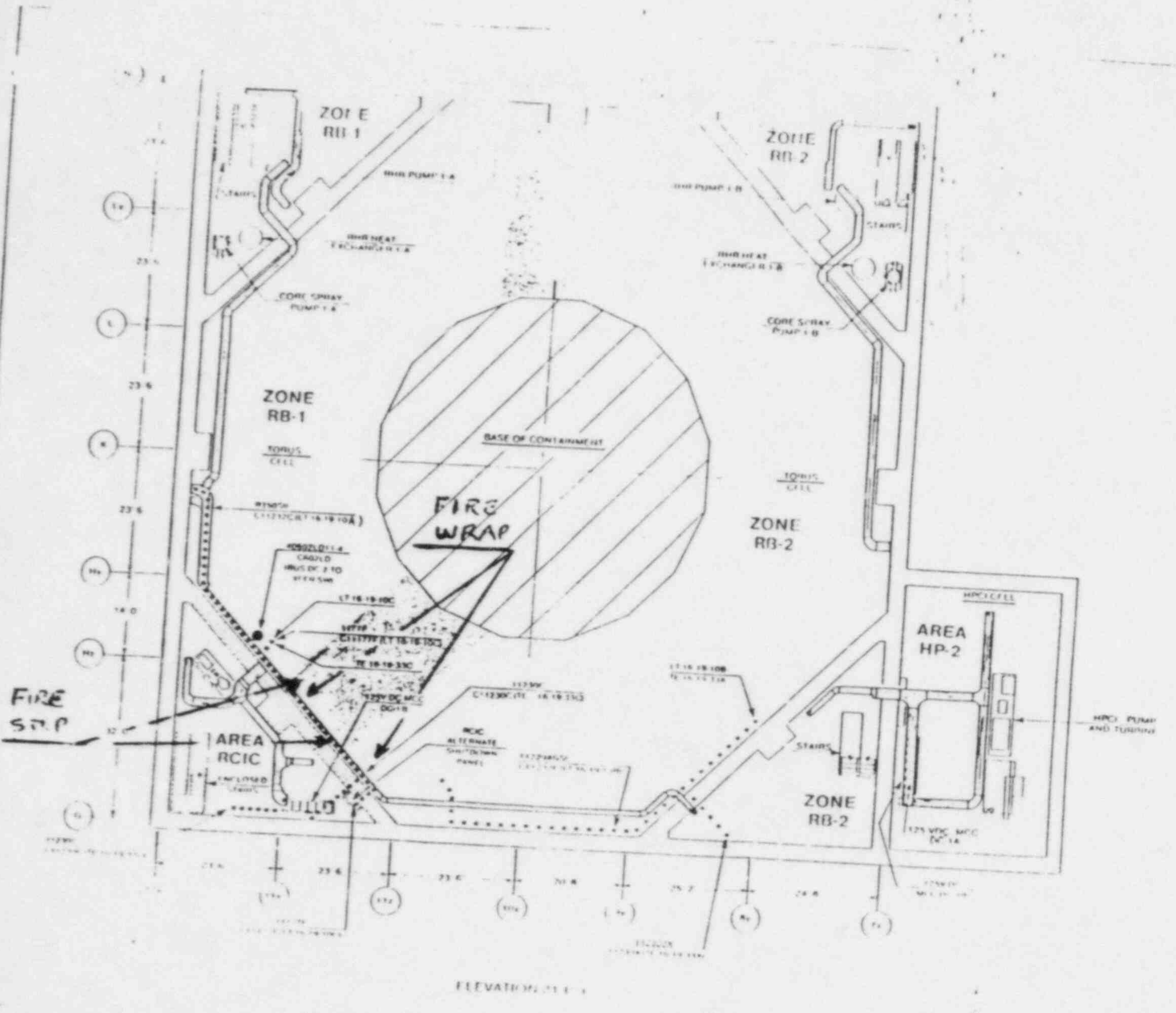
COMPLETED ENGINEERING DESIGN CHANGES

- RADIANT HEAT SHIELD INSTALLED BETWEEN MCC 89A AND 89B ON 252' ELEVATION OF REACTOR BLDG
- REROUTE OF CABLE ON 252' ELEVATION OF REACTOR BLDG
- EXTENSION OF SUPPRESSION SYSTEM IN NW CORNER OF 252' ELEVATION OF REACTOR BLDG
- INSTALLATION OF AUTOMATIC SUPPRESSION SYSTEM IN NW CORNER ROOM OF 232' ELEVATION OF REACTOR BLDG
- WRAPPING CONDUIT WITH A RATED FIRE BARRIER IN THE TURBINE BLDG/RADWASTE BLDG HALLWAY

MODIFICATIONS ENGINEERED FOR 1985 OUTAGE

- CONDUIT - ENSURE PROTECTION FROM FIRE OF REQUIRED SAFE SHUTDOWN EQUIPMENT BY WRAPPING OF CONDUIT WITH THERMAL SCIENCE, INC. (TSI) THERMO-LAG 330 3-HOUR RATED FIRE BARRIERS

- TRAY STOP - ESTABLISH CORRIDORS OF NO INTERVENING COMBUSTIBLES BY APPLYING FIRE STOP SYSTEMS THERMALASTIC CABLE TRAY FIRE BREAKS



NOTES

1) Drawing shows routing of cables associated with minimum equipment required for hot and cold shutdown.

2) Raceways containing safe shutdown cables that are routed through separation zones will be provided with one hour barriers where they are located inside separation zones.

REFERENCE DRAWINGS

G191148 REV. 9
G191329 REV. 11
G191330 REV. 13
G191331 REV. 10

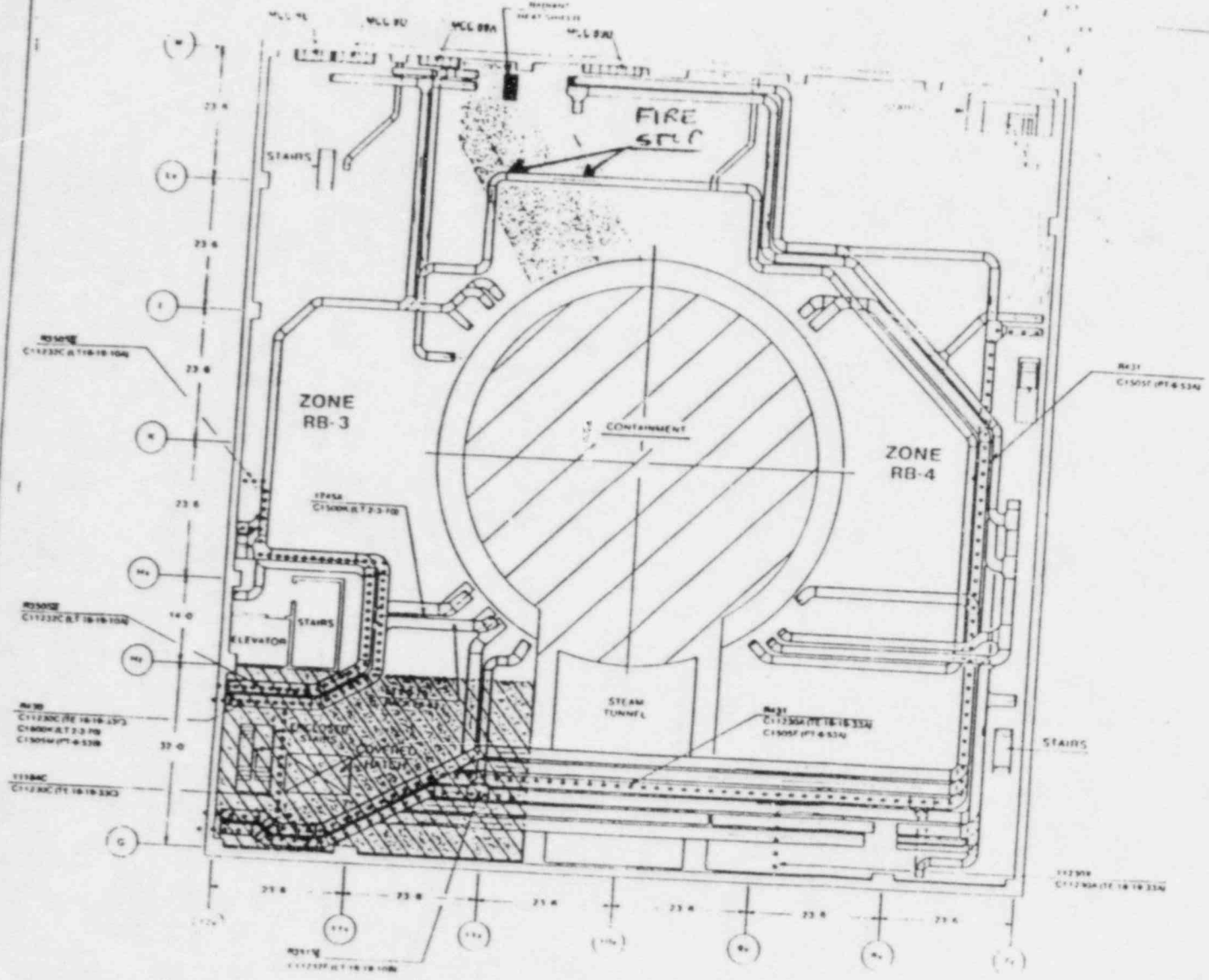
LEGEND

- REACTOR BUILDING FIRE BARRIER 3 HOUR RATING
- DIV I INSTRUMENTATION
- DIV II INSTRUMENTATION
- SEPARATION ZONE
- CONTAINMENT

REV NO.	DATE	DESCRIPTION			
1		ISSUED FOR REPORT			

REACTOR BUILDING RACEWAY AND MAJOR EQUIPMENT FOR DIV I VS DIV II PROCESS MONITORING

Engineering Drawing and Management Inc.



ELEVATION

NOTES

1) Drawing shows routing of cables associated with minimum equipment required for hot and cold shutdown.

2) Raceways containing safe shutdown cables that are routed through separation zones will be provided with one hour barriers where they are located inside separation zones.

REFERENCE DRAWINGS

G191148 REV. 9
G191335 REV. 24
G191334 REV. 21
G191349 SHT 1 OF 3 REV 9

LEGEND

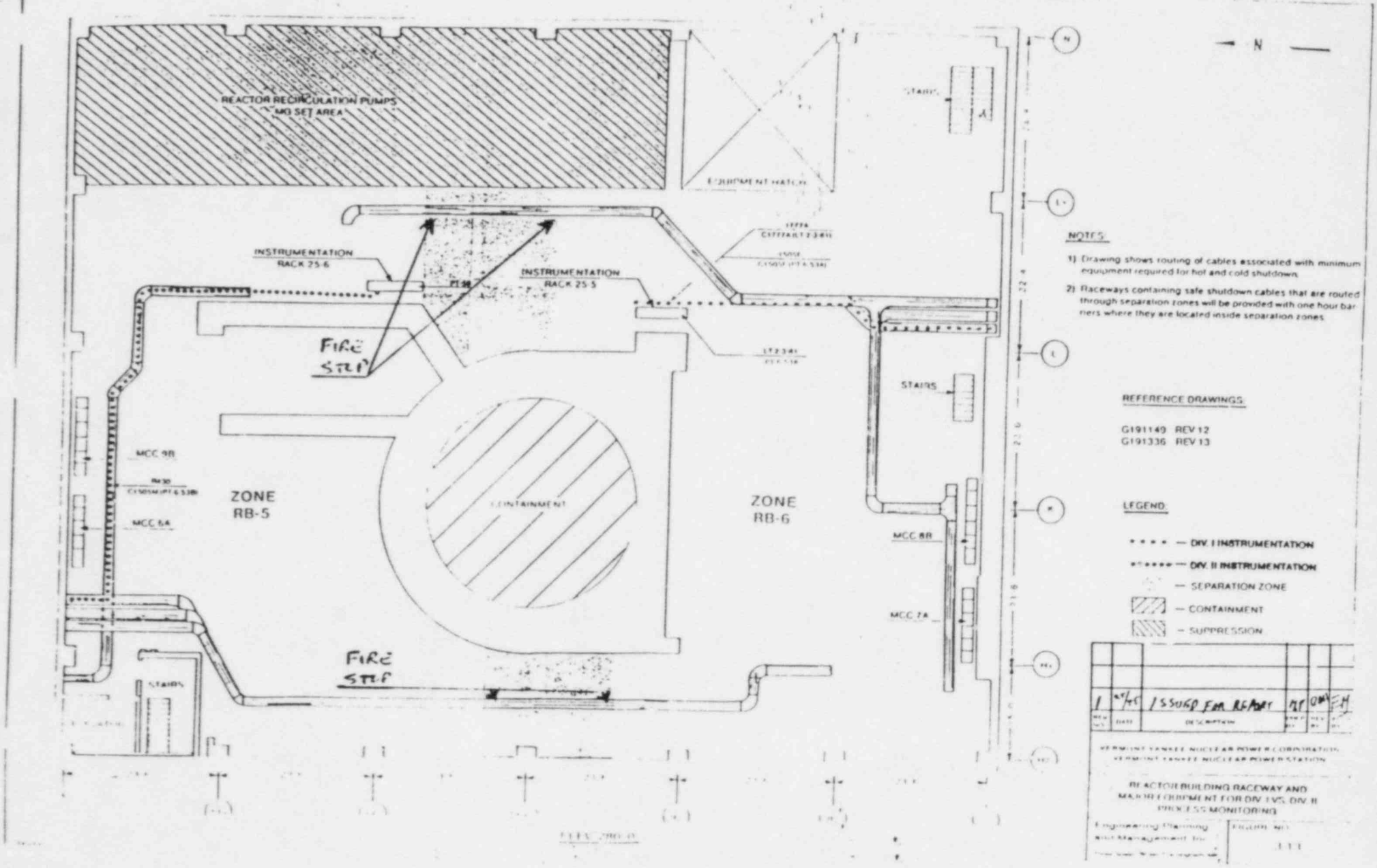
* * * * — DIV. I INSTRUMENTATION
* * * * * * — DIV. II INSTRUMENTATION
— SEPARATION ZONE
— CONTAINMENT
— SUPPRESSION

1	8/8	ISSUED FOR REPORT	MP	RW	JD
NO.	DATE	DESCRIPTION	ENGR APP'D	QA APP'D	APPROVED

VERMONT YANKEE NUCLEAR POWER CORPORATION
VERMONT YANKEE NUCLEAR POWER STATION

REACTOR BUILDING RACEWAY AND MAJOR EQUIPMENT FOR DIV I VS. DIV II PROCESS MONITORING

Engineering Planning and Management
Engineer
Date


REACTOR RECIRCULATION PUMPS
MG SET AREA
EQUIPMENT HATCH
STAIRS
INSTRUMENTATION
RACK 25.6
INSTRUMENTATION
RACK 25.5
FIRE
STOP
STAIRS
MCC 9B
MCC 6A
ZONE
RB-5
CONTAINMENT
ZONE
RB-6
MCC 8B
MCC 7A
FIRE
STOP
STAIRS
N
NOTES
1) Drawing shows routing of cables associated with minimum equipment required for hot and cold shutdown.
2) Raceways containing safe shutdown cables that are routed through separation zones will be provided with one hour barriers where they are located inside separation zones.
REFERENCE DRAWINGS
G191149 REV 12
G191336 REV 13
LEGEND
— DIV. I INSTRUMENTATION
— DIV. II INSTRUMENTATION
— SEPARATION ZONE
— CONTAINMENT
— SUPPRESSION
1
ISSUED FOR REVIEW
REACTOR BUILDING RACEWAY AND
MAJOR EQUIPMENT FOR DIV. I VS. DIV. II
PROCESS MONITORING

VY PLAN FOR APPENDIX R CLOSEOUT

VERMONT YANKEE PLAN
FOR APPENDIX R
CLOSEOUT

o PROCEDURE CHANGES COMPLETED	AUGUST 31, 1985
o DESIGN CHANGES READY FOR INSTALLATION	SEPTEMBER 15, 1985
o EXEMPTIONS RECEIVED FROM NRR	SEPTEMBER 30, 1985
o DOCUMENTATION COMPLETED	SEPTEMBER 30, 1985
o DESIGN CHANGES INSTALLED	END OF 1985/86 OUTAGE *
o CLOSEOUT AUDIT COMPLETED BY I&E	JUNE 1, 1986

* SCHEDULED FOR MAY 1986

OUTSTANDING TASKS

- ONGOING WORK AT VERMONT YANKEE
- o WORK HELD PENDING NRC INPUT

- o OBTAIN NRR APPROVAL OF III.G EXEMPTIONS
- o OBTAIN/REVIEW FINAL VERSION OF NRC STEERING COMMITTEE REPORT (GL 85-01)
- o OBTAIN I&E APPROVAL OF VERMONT YANKEE POSITION ON "FUSE" ISSUE RAISED BY I&E NOTICE 85-09
- REVISE POST-FIRE OPERATING PROCEDURES CONSISTENT WITH III.G REPORT
- DESIGN/INSTALL CABLE TRAY AND CONDUIT FIRE STOPS
- PROCEDURIZE IDENTIFICATION OF SAFE SHUTDOWN CIRCUITS SO THAT DESIGN CANNOT BE MODIFIED WITHOUT REFERENCE TO FIRE PROTECTION REQUIREMENTS
- WRITE REPORT DEMONSTRATING III.L COMPLIANCE
- WRITE REPORT DEMONSTRATING III.A-F, III.H-K AND III.M-O COMPLIANCE
- ASSEMBLE COMPLETE DOCUMENTATION PACKAGE AND RE-EVALUATE OVERALL COMPLIANCE WITH APPENDIX R
- o OBTAIN I&E APPROVAL FOLLOWING CLOSEOUT AUDIT

UNCERTAINTIES

- NRR APPROVAL OF III.G EXEMPTIONS
- CONTENT OF FINAL VERSION OF GL 85-01
- I&E APPROVAL OF VERMONT YANKEE POSITION ON "FUSE" ISSUE
- RESULT OF VERMONT YANKEE REVIEW OF OVERALL APPENDIX R COMPLIANCE
- SCHEDULE FOR I&E CLOSEOUT AUDIT