

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
1.0	<u>INTRODUCTION</u>	1-1
1.1	Background and Purpose	1-1
2.0	<u>METHODOLOGY - FIRE HAZARDS ANALYSIS AND APPENDIX R EVALUATION</u>	
2.1	Introduction	2-1
2.2	Information Collection	2-2
2.3	Evaluation	2-8
3.0	<u>APPENDIX R SECTION IIIG EVALUATION</u>	3-1
3.1	Deleted	3-1
3.2	Deleted	3-1
3.3	Deleted	3-1
3.4	Deleted	3-1
3.5	Deleted	3-1
3.6	Deleted	3-1
3.7	Deleted	3-1
3.8	Deleted	3-1
3.9	Deleted	3-1
3.10	Valves	3-2
3.11	Safe Shutdown Equipment and Circuits	3-2
3.12	Alternative Shutdown Capability	3-4
3.13	Spurious Operation of Components	3-34
3.14	Exemptions	3-37

TABLE OF CONTENTS (Cont'd)

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
4.0	<u>FIRE HAZARDS ANALYSIS</u>	4-1
4.1	<u>REACTOR BUILDING</u>	4-1
4.1.1	Fire Zone, RB-FZ-1a	4-3
4.1.2	Fire Zone, RB-FZ-1b	4-5
4.1.3	Fire Zone, RB-FZ-1c	4-7
4.1.4	Fire Zone, RB-FZ-1d	4-9
4.1.5	Fire Zone, RB-FZ-1e	4-11
4.1.6	Fire Zone, RB-FZ-2	4-13
4.1.7	Fire Zone, RB-FZ-3	4-15
4.2	<u>AUXILIARY BUILDING</u>	4-17
4.2.1	Fire Area AB-FA-1	4-18
4.2.2	Fire Zone, AB-FZ-2	4-21
4.2.3	Remainder of Auxiliary Building	4-24
4.2.3.1	Fire Zone, AB-FZ-1	4-24
4.2.3.2	Fire Zones, AB-FZ-2a, 2b, 2c	4-26
4.2.3.3	Fire Zone, AB-FZ-3	4-28
4.2.3.4	Fire Zone, AB-FZ-4	4-31
4.2.3.5	Fire Zone, AB-FZ-5	4-34
4.2.3.6	Fire Zone, AB-FZ-6	4-38
4.2.3.6a	Fire Zone, AB-FZ-6a	4-41
4.2.3.7	Fire Zone, AB-FZ-7	4-43
4.2.3.8	Fire Zone, AB-FZ-8	4-45
4.2.3.9	Fire Zone, AB-FZ-9	4-47
4.2.3.10	Fire Zone, AB-FZ-10	4-49
4.2.3.11	Fire Zone, AB-FZ-11	4-51

TABLE OF CONTENTS (Cont'd)

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
4.3	<u>INTERMEDIATE BUILDING</u>	4-53
4.3.1	Fire Zone, IB-FZ-1	4-54
4.3.2	Fire Zone, IB-FZ-2	4-56
4.3.3	Fire Zone, IB-FZ-3	4-58
4.3.4	Fire Zone, IB-FZ-4	4-60
4.3.5	Fire Zone, IB-FZ-5	4-63
4.3.6	Fire Zone, IB-FZ-6	4-65
4.3.7	Fire Zone, IB-FZ-7	4-67
4.3.8	Fire Zone, IB-FZ-8	4-68
4.4	<u>CONTROL BUILDING</u>	4-71
4.4.1	Fire Area, CB-FA-1	4-72
4.4.2	Fire Area, CB-FA-2a	4-74
4.4.3	Fire Area, CB-FA-2b	4-76
4.4.4	Fire Area, CB-FA-2c	4-77
4.4.5	Fire Area, CB-FA-2d	4-79
4.4.6	Fire Area, CB-FA-2e	4-81
4.4.7	Fire Area, CB-FA-2f	4-83
4.4.8	Fire Area, CB-FA-2g	4-85
4.4.9	Fire Area, CB-FA-3a	4-87
4.4.10	Fire Area, CB-FA-3b	4-89
4.4.11	Fire Area, CB-FA-3c	4-91
4.4.12	Fire Area, CB-FA-3d	4-93
4.4.13	Fire Area, CB-FA-4a	4-95
4.4.14	Fire Area, CB-FA-4b	4-97
4.4.15	Fire Zone, CB-FZ-5a	4-99
4.4.16	Fire Zone, CB-FZ-5b	4-100

TABLE OF CONTENTS (Cont'd)

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
4.5	<u>DIESEL GENERATOR BUILDING</u>	4-102
4.5.1	Fire Area, DG-FA-1	4-103
4.5.2	Fire Area, DG-FA-2	4-105
4.6	<u>INTAKE SCREEN AND PUMPHOUSE</u>	4-107
4.6.1	Fire Zone, ISPH-FZ-1	4-108
4.6.2	Fire Zone, ISPH-FZ-2	4-110
4.6.3	Fire Zone, ISPH-FZ-3	4-112
4.6.4	Fire Area, ISPH-FA-2	4-114
4.7	<u>FUEL HANDLING BUILDING</u>	4-116
4.7.1	Fire Zone, FH-FZ-1	4-117
4.7.2	Fire Zone, FH-FZ-2	4-119
4.7.3	Fire Zone, FH-FZ-3	4-122
4.7.4	Fire Zone, FH-FZ-4	4-124
4.7.5	Fire Zone, FH-FZ-5	4-126
4.7.6	Fire Zone, FH-FZ-6	4-128
4.8	<u>TURBINE BUILDING</u>	4-130
4.8.1	Fire Area, TB-FA-1	4-130
4.9	<u>AIR INTAKE TUNNEL</u>	4-134
4.9.1	Fire Zone, AIT-FZ-1	4-134
4.9.2	Fire Zone, AIT-FZ-1a	4-136
4.10	<u>Radwaste Storage Facility</u>	4-138
4.10.1	Fire Area RWSF-FA-1	4-138
4.11	<u>Waste Handling and Packaging Facility</u>	4-140
4.11.1	Fire Area WHPF-FA-1	4-140
4.11.2	Fire Area WHPF-FA-2	4-141

TABLE OF CONTENTS (Cont'd)

<u>SECTION</u>	<u>TITLE</u>	<u>PAGE</u>
4.12	<u>Chemical Cleaning Building</u>	4-144
4.12.1	Fire Zone CCB-FZ-1	4-144
4.12.2	Fire Zone CCB-FZ-2	4-145
4.13	<u>Station Blackout (SBO) Diesel Generator Bldg.</u>	4-148
4.13.1	Fire Area SBO-FA-1	4-148
4.13.2	Fire Area SBO-FA-2	4-150
4.14	<u>Original Steam Generator Storage Facility (OSGSF)</u>	4-151
4.14.1	Fire Area OSGSF-FA-1	4-151
4.15	<u>Outage Equipment Storage Building (OESB)</u>	4-153
4.15.1	Fire Area OESB-FA-1	4-153
5.0	TMI-1 COMPARISON TO THE REQUIREMENTS OF NRC BRANCH TECHNICAL POSITION APCSB 9.5-1	5-1
6.0	PROTECTION AGAINST WATER SPRAY TO CONFORM WITH 10CFR50 APPENDIX R	6-1

LIST OF ATTACHMENTS

Attachment 3-0	System Availability for a Fire in Fire Zone/Area
Attachment 3-1	Protected Cables for Appendix R Modifications
Attachment 3-2	Deleted
Attachment 3-3	Safe Shutdown Equipment
Attachment 3-4	Flow Diagrams for Fire Safe Shutdown Systems
Attachment 3-5	Component Availability for a Fire in Fire Area/Zone
Attachment 3-6	Cables and Components in Fire Area/Zone
Attachment 3-7A	Manual Actions Required for Hot Shutdown in Appendix R III.G.2 Fire Areas/Zones
Attachment 3-7B	Manual Actions Required for Hot Shutdown in Appendix R III.G.3 Fire Areas/Zones
Attachment 3-7C	Manual Actions and Repairs Required for Cold Shutdown in Any Fire Area/Zone
Attachment 3-8	Appendix R Emergency Lights

LIST OF DRAWINGS

<u>Drawing No.</u>	<u>Title</u>
1-FHA-001	Fire Area Layout - Legend and Notes
1-FHA-002	Fire Area Layout - Turbine Bldg. - Plan Floor El. 305'-0"
1-FHA-003	Fire Area Layout - Turbine Bldg. - Plan Floor El. 305'-0"
1-FHA-004	Fire Area Layout - Turbine Bldg. - Plan Floor El. 322'-0"
1-FHA-005	Fire Area Layout - Turbine Bldg. - Plan Floor El. 322'-0"
1-FHA-006	Fire Area Layout - Turbine Bldg. - Plan Floor El. 355'-0"
1-FHA-007	Fire Area Layout - Turbine Bldg. - Plan Floor El. 355'-0"
1-FHA-008	Fire Area Layout - Turbine Bldg. - Section L-L
1-FHA-009	Fire Area Layout - Turbine Bldg. - Section L-L
1-FHA-010	Fire Area Layout - Turbine Bldg. - Section N-N
1-FHA-011	Fire Area Layout - Turbine Bldg. - Section M-M
1-FHA-012	Fire Area Layout - Turbine Bldg. - Section P-P
1-FHA-013	Fire Area Layout - Turbine Bldg. - Section K-K
1-FHA-014	Fire Area Layout - Turbine Bldg. - Section K-K
1-FHA-015	Fire Area Layout - Turbine Bldg. - Section O-O
1-FHA-016	Fire Area Layout - Turbine Bldg. - Section Q-Q
1-FHA-017	Fire Area Layout - Reactor Bldg. - Plan Floor El. 281'-0"
1-FHA-018	Fire Area Layout - Reactor Bldg. - Plan Floor El. 308'-0"
1-FHA-019	Fire Area Layout - Reactor Bldg. - Plan El. 331'-0"
1-FHA-020	Fire Area Layout - Reactor Bldg. - Plan Floor El. 346'-0"
1-FHA-021	Fire Area Layout - Reactor Bldg. - Plan Floor El. 365'-6" & 355'-0"
1-FHA-022	Fire Area Layout - Reactor Bldg. - Section A-A & C-C
1-FHA-023	Fire Area Layout - Reactor Bldg. - Section B-B
1-FHA-024	Fire Area Layout - Reactor Bldg. - Plan Floor El. 382'-0"
1-FHA-025	Fire Area Layout - Auxiliary Bldg. & Air Intake Tunnel - Partial Plans & Sections
1-FHA-026	Fire Area Layout - Auxiliary & Fuel Handling Bldgs. - Plan Floor El. 281'-0"

LIST OF DRAWINGS (Cont'd)

<u>Drawing No.</u>		<u>Title</u>
1-FHA-027	Fire Area Layout	- Auxiliary & Fuel Handling Bldgs. - Plan Floor El. 305'0"
1-FHA-028	Fire Area Layout	- Auxiliary & Fuel Handling Bldgs. - Plan Floor El. 331'0" & 329'-0"
1-FHA-029	Fire Area Layout	- Fuel Handling Bldgs. - Plan Floor El. 348'-0"
1-FHA-030	Fire Area Layout	- Auxiliary & Fuel Handling Bldgs. - Sections
1-FHA-031	Fire Area Layout	- Auxiliary & Fuel Handling Bldgs. - Sections
1-FHA-032	Fire Area Layout	- Auxiliary Bldg. - Sections
1-FHA-033	Fire Area Layout	- Fuel Handling Bldg. - Sections
1-FHA-034	Fire Area Layout	- Control Tower - Plan Floor El. 285'-0" & 306'-0"
1-FHA-035	Fire Area Layout	- Control Tower - Plan Floor El. 322'-0" & 338'-6"
1-FHA-036	Fire Area Layout	- Control Tower - Plan Floor El. 355'-0" & 380'-0"
1-FHA-037	Fire Area Layout	- Control Tower - Section A-A
1-FHA-038	Fire Area Layout	- Control Tower - Section B-B
1-FHA-039	Fire Area Layout	- Intermediate Bldg. - Plan Floor El. 295'-0"
1-FHA-040	Fire Area Layout	- Intermediate Bldg. - Plan Floor El. 305'-0"
1-FHA-041	Fire Area Layout	- Intermediate Bldg. - Plan Floor El. 322'-0"
1-FHA-042	Fire Area Layout	- Intermediate Bldg. - Plan Floor El. 355'-0"
1-FHA-043	Fire Area Layout	- Intermediate Bldg. - Sections
1-FHA-044	Fire Area Layout	- Diesel Generator Bldg. - Plan Floor El. 305'-0"
1-FHA-045	Fire Area Layout	- Diesel Generator Bldg. - Sections
1-FHA-046	Fire Area Layout	- Intake Screen and Pump House - Plan Floor El. 308'-0"