

## MASTER TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	<u>INTRODUCTION AND GENERAL DESCRIPTION OF PLANT</u>	1.0-1
1.1	<u>INTRODUCTION</u>	1.1-1
1.2	<u>GENERAL PLANT DESCRIPTION</u>	1.2-1
1.2.1	PRINCIPAL DESIGN CRITERIA	1.2-1
1.2.2	PLANT DESCRIPTION	1.2-14
1.2.3	SYMBOLS USED IN ENGINEERING DRAWINGS	1.2-45
1.3	<u>COMPARISON TABLES</u>	1.3-1
1.3.1	COMPARISONS WITH SIMILAR FACILITY DESIGNS	1.3-1
1.3.2	COMPARISON OF FINAL AND PRELIMINARY INFORMATION	1.3-2
1.4	<u>IDENTIFICATION OF AGENTS AND CONTRACTORS</u>	1.4-1
1.4.1	THE CLEVELAND ELECTRIC ILLUMINATING COMPANY - OWNER	1.4-1
1.4.2	GILBERT ASSOCIATES, INC. - ARCHITECT/ENGINEER	1.4-2
1.4.3	GENERAL ELECTRIC COMPANY - NUCLEAR STEAM SUPPLY SYSTEM	1.4-3
1.4.4	RAYMOND KAISER ENGINEERS, INC.	1.4-4
1.4.5	GENERAL ELECTRIC COMPANY - TURBINE GENERATOR VENDOR	1.4-4
1.4.6	NUS CORPORATION - ENVIRONMENTAL CONSULTANT	1.4-5
1.4.7	OTHER CONSULTANTS	1.4-6
1.5	<u>REQUIREMENTS FOR FURTHER TECHNICAL INFORMATION</u>	1.5-1
1.5.1	CURRENT DEVELOPMENT PROGRAMS	1.5-1
1.6	<u>REFERENCE MATERIALS</u>	1.6-1
1.7	<u>DRAWINGS AND OTHER DETAILED INFORMATION</u>	1.7-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.7.1	ELECTRICAL, INSTRUMENTATION, AND CONTROL DRAWINGS	1.7-1
1.7.2	PIPING AND INSTRUMENTATION DIAGRAMS	1.7-1
1.7.3	OTHER DETAILED INFORMATION	1.7-1
1.8	<u>NRC REGULATORY GUIDE ASSESSMENT</u>	1.8-1
1.9	<u>STANDARD DESIGNS</u>	1.9-1
1.10	<u>EVALUATION OF UNIT 1 OPERATIONS RESULTING FROM UNIT 2 CONSTRUCTION ACTIVITIES</u>	1.10-1
APPENDIX 1A	<u>NUREG-0737 "TMI ACTION PLAN REQUIREMENTS FOR APPLICANTS FOR NEW OPERATING LICENSES"</u>	APP. 1A TAB
APPENDIX 1B	<u>PNPP LICENSE COMMITMENTS</u>	APP. 1B TAB
2.0	<u>SITE CHARACTERISTICS</u>	2.0-1
2.1	<u>GEOGRAPHY AND DEMOGRAPHY</u>	2.1-1
2.1.1	SITE LOCATION AND DESCRIPTION	2.1-1
2.1.2	EXCLUSION AREA AUTHORITY AND CONTROL	2.1-3
2.1.3	POPULATION DISTRIBUTION	2.1-5
2.1.4	REFERENCES FOR SECTION 2.1	2.1-11
2.2	<u>NEARBY INDUSTRIAL, TRANSPORTATION AND MILITARY FACILITIES</u>	2.2-1
2.2.1	LOCATIONS AND ROUTES	2.2-1
2.2.2	DESCRIPTIONS	2.2-4
2.2.3	EVALUATION OF POTENTIAL ACCIDENTS	2.2-21
2.2.4	REFERENCES FOR SECTION 2.2	2.2-39
2.3	<u>METEOROLOGY</u>	2.3-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
2.3.1	REGIONAL CLIMATOLOGY	2.3-1
2.3.2	LOCAL METEOROLOGY	2.3-17
2.3.3	ONSITE METEOROLOGICAL MEASUREMENT PROGRAM	2.3-31
2.3.4	SHORT TERM (ACCIDENT) DIFFUSION ESTIMATES	2.3-40
2.3.5	LONG TERM (ROUTINE RELEASE) DIFFUSION ESTIMATES	2.3-43
2.3.6	REFERENCES FOR SECTION 2.3	2.3-47
2.4	<u>HYDROLOGIC ENGINEERING</u>	2.4-1
2.4.1	HYDROLOGIC DESCRIPTION	2.4-1
2.4.2	FLOODS	2.4-4
2.4.3	PROBABLE MAXIMUM FLOOD (PMF) ON STREAMS AND RIVERS	2.4-7
2.4.4	POTENTIAL DAM FAILURES, SEISMICALLY INDUCED	2.4-11
2.4.5	PROBABLE MAXIMUM SURGE FLOODING	2.4-12
2.4.6	PROBABLE MAXIMUM TSUNAMI FLOODING	2.4-45
2.4.7	ICE EFFECTS	2.4-45
2.4.8	COOLING WATER TUNNELS AND OFFSHORE STRUCTURES	2.4-47
2.4.9	CHANNEL DIVERSIONS	2.4-50
2.4.10	FLOODING PROTECTION REQUIREMENTS	2.4-50
2.4.11	LOW WATER CONSIDERATIONS	2.4-51
2.4.12	DISPERSION, DILUTION, AND TRAVEL TIMES OF ACCIDENTAL RELEASES OF RADIOACTIVE EFFLUENTS IN LAKE ERIE	2.4-62
2.4.13	GROUNDWATER	2.4-65
2.4.14	TECHNICAL SPECIFICATION AND EMERGENCY OPERATION REQUIREMENTS	2.4-117

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
2.4.15	LIST OF PERSONS AND AGENCIES INTERVIEWED	2.4-117
2.4.16	REFERENCES FOR SECTION 2.4	2.4-120
2.5	<u>GEOLOGY, SEISMOLOGY AND GEOTECHNICAL ENGINEERING</u>	2.5-1
2.5.1	BASIC GEOLOGIC AND SEISMIC INFORMATION	2.5-7
2.5.2	VIBRATORY GROUND MOTION	2.5-117
2.5.3	SURFACE FAULTING	2.5-167
2.5.4	STABILITY OF SUBSURFACE MATERIALS AND FOUNDATIONS	2.5-181
2.5.5	STABILITY OF SLOPES	2.5-265
2.5.6	EMBANKMENTS AND DAMS	2.5-270
2.5.7	REFERENCES FOR SECTION 2.5	2.5-270
APPENDIX 2A	<u>ANNUAL JOINT FREQUENCY DISTRIBUTIONS FOR CLEVELAND AND ERIE</u>	APP. 2A TAB
APPENDIX 2B	<u>MONTHLY AND ANNUAL JOINT FREQUENCY DISTRIBUTIONS FOR PNPP, 10-M WINDS</u>	APP. 2B TAB
APPENDIX 2C	<u>MONTHLY AND ANNUAL JOINT FREQUENCY DISTRIBUTIONS FOR PNPP, 60-M WINDS</u>	APP. 2C TAB
APPENDIX 2D	<u>BEDROCK DEFORMATION IN THE COOLING WATER TUNNEL</u>	APP. 2D TAB
APPENDIX 2E	<u>SOIL AND ROCK BORINGS</u>	APP. 2E TAB
3.0	<u>DESIGN OF STRUCTURES, COMPONENTS, EQUIPMENT AND SYSTEMS</u>	3.1-1
3.1	<u>CONFORMANCE WITH NRC GENERAL DESIGN CRITERIA</u>	3.1-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
3.1.1	SUMMARY DESCRIPTION	3.1-1
3.1.2	CRITERION CONFORMANCE	3.1-2
3.2	<u>CLASSIFICATION OF STRUCTURES, COMPONENTS AND SYSTEMS</u>	3.2-1
3.2.1	SEISMIC CLASSIFICATION	3.2-1
3.2.2	SYSTEM QUALITY GROUP CLASSIFICATIONS	3.2-3
3.2.3	SYSTEM SAFETY CLASSIFICATIONS	3.2-3
3.2.4	QUALITY ASSURANCE	3.2-9
3.2.5	CORRELATION OF SAFETY CLASSES WITH INDUSTRY CODES	3.2-10
3.3	<u>WIND AND TORNADO LOADS</u>	3.3-1
3.3.1	WIND LOADINGS	3.3-1
3.3.2	TORNADO LOADINGS	3.3-3
3.3.3	REFERENCES FOR SECTION 3.3	3.3-7
3.4	<u>WATER LEVEL (FLOOD) DESIGN</u>	3.4-1
3.4.1	FLOOD PROTECTION	3.4-1
3.4.2	ANALYTICAL AND TEST PROCEDURES	3.4-3
3.4.3	FLOOD FORCE APPLICATION	3.4-4
3.5	<u>MISSILE PROTECTION</u>	3.5-1
3.5.1	MISSILE SELECTION AND DESCRIPTION	3.5-1
3.5.2	STRUCTURES, SYSTEMS AND COMPONENTS TO BE PROTECTED FROM EXTERNALLY GENERATED MISSILES	3.5-19
3.5.3	BARRIER DESIGN PROCEDURES	3.5-20
3.5.4	REFERENCES FOR SECTION 3.5	3.5-22

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
3.6	<u>PROTECTION AGAINST DYNAMIC EFFECTS ASSOCIATED WITH THE POSTULATED RUPTURE OF PIPING</u>	3.6-1
3.6.1	POSTULATED PIPING FAILURES IN FLUID SYSTEMS	3.6-1
3.6.2	DETERMINATION OF BREAK LOCATIONS AND DYNAMIC EFFECTS ASSOCIATED WITH THE POSTULATED RUPTURE OF PIPING	3.6-9
3.6.3	REFERENCES FOR SECTION 3.6	3.6-83
3.7	<u>SEISMIC DESIGN</u>	3.7-1
3.7.1	SEISMIC INPUT	3.7-1
3.7.2	SEISMIC SYSTEM ANALYSIS	3.7-5
3.7.3	SEISMIC SUBSYSTEM ANALYSIS	3.7-25
3.7.4	SEISMIC INSTRUMENTATION	3.7-44
3.7.5	REFERENCES FOR SECTION 3.7	3.7-53
3.8	<u>DESIGN OF CATEGORY I STRUCTURES</u>	3.8-1
3.8.0	GENERAL DESCRIPTION	3.8-1
3.8.1	CONCRETE CONTAINMENT	3.8.4
3.8.2	STEEL CONTAINMENT	3.8-95
3.8.3	INTERNAL CONCRETE AND STEEL STRUCTURES	3.8-147
3.8.4	OTHER SEISMIC CATEGORY I STRUCTURES	3.8-199
3.8.5	FOUNDATIONS AND CONCRETE SUPPORTS	3.8-273
3.8.6	REFERENCES FOR SECTION 3.8	3.8-291
3.9	<u>MECHANICAL SYSTEMS AND COMPONENTS</u>	3.9-1
3.9.1	SPECIAL TOPICS FOR MECHANICAL COMPONENTS	3.9-1
3.9.2	DYNAMIC TESTING AND ANALYSIS	3.9-50

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
3.9.3	ASME CODE CLASS 1, 2, AND 3 COMPONENTS, COMPONENT SUPPORTS AND CORE SUPPORT STRUCTURES	3.9-99
3.9.4	CONTROL ROD DRIVE SYSTEM	3.9-148
3.9.5	REACTOR PRESSURE VESSEL INTERNALS	3.9-151
3.9.6	INSERVICE TESTING OF PUMPS AND VALVES	3.9-170
3.9.7	REFERENCES FOR SECTION 3.9	3.9-170
3.10	<u>SEISMIC AND DYNAMIC QUALIFICATION OF MECHANICAL AND ELECTRICAL EQUIPMENT</u>	3.10-1
3.10.1	SEISMIC AND DYNAMIC QUALIFICATION CRITERIA	3.10-3
3.10.2	METHODS AND PROCEDURES FOR SEISMIC AND DYNAMIC QUALIFICATION OF MECHANICAL AND ELECTRICAL EQUIPMENT	3.10-9
3.10.3	METHODS AND PROCEDURES FOR SEISMIC AND DYNAMIC QUALIFICATION OF SUPPORTS OF MECHANICAL AND ELECTRICAL EQUIPMENT	3.10-17
3.10.4	SEISMIC AND DYNAMIC QUALIFICATION RESULTS	3.10-22
3.10.5	REFERENCES FOR SECTION 3.10	3.10-23
3.11	<u>ENVIRONMENTAL QUALIFICATION OF MECHANICAL AND ELECTRICAL EQUIPMENT</u>	3.11-1
3.11.1	EQUIPMENT IDENTIFICATION AND ENVIRONMENTAL CONDITIONS	3.11-1
3.11.2	ENVIRONMENTAL QUALIFICATION PROGRAM ACCEPTANCE CRITERIA	3.11-6
3.11.3	QUALIFICATION TESTS RESULTS	3.11-33
3.11.4	LOSS OF VENTILATION	3.11-36
3.11.5	ESTIMATED CHEMICAL AND RADIATION ENVIRONMENT	3.11-40
3.11.6	REFERENCES FOR SECTION 3.11	3.11-43

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
APPENDIX 3A	<u>HYDRODYNAMIC LOADS FOR PNPP</u>	APP. 3A TAB
APPENDIX 3B	<u>CONTAINMENT LOADS</u>	APP. 3B TAB
4.0	<u>REACTOR</u>	4.0-1
4.1	<u>SUMMARY DESCRIPTION</u>	4.1-1
4.1.1	REACTOR VESSEL	4.1-1
4.1.2	REACTOR INTERNAL COMPONENTS	4.1-1
4.1.3	REACTIVITY CONTROL SYSTEMS	4.1-8
4.1.4	ANALYSIS TECHNIQUES	4.1-9
4.1.5	REFERENCES FOR SECTION 4.1	4.1-14
4.2	<u>FUEL SYSTEM DESIGN</u>	4.2-1
4.2.1	GENERAL AND DETAILED DESIGN BASES	4.2-1
4.2.2	DESCRIPTION AND DESIGN DRAWINGS	4.2-1
4.2.3	DESIGN EVALUATIONS	4.2-5
4.2.4	TESTING, INSPECTION AND SURVEILLANCE PLANS	4.2-6
4.2.5	OPERATING AND DEVELOPMENTAL EXPERIENCE	4.2-6
4.2.6	REFERENCES FOR SECTION 4.2	4.2-6
4.3	<u>NUCLEAR DESIGN</u>	4.3-1
4.3.1	DESIGN BASES	4.3-1
4.3.2	DESCRIPTION	4.3-1
4.3.3	ANALYTICAL METHODS	4.3-12
4.3.4	CHANGES	4.3-12
4.3.5	REFERENCES FOR SECTION 4.3	4.3-13



MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
4.4	<u>THERMAL AND HYDRAULIC DESIGN</u>	4.4-1
4.4.1	DESIGN BASIS	4.4-1
4.4.2	DESCRIPTION OF THERMAL-HYDRAULIC DESIGN OF THE REACTOR CORE	4.4-2
4.4.3	DESCRIPTION OF THE THERMAL AND HYDRAULIC DESIGN OF THE REACTOR COOLANT SYSTEM	4.4-4
4.4.4	EVALUATION	4.4-10
4.4.5	TESTING AND VERIFICATION	4.4-11
4.4.6	INSTRUMENTATION REQUIREMENTS	4.4-12
4.5	<u>REACTOR MATERIALS</u>	4.5-1
4.5.1	CONTROL ROD DRIVE SYSTEM STRUCTURAL MATERIALS	4.5-1
4.5.2	REACTOR INTERNAL MATERIALS	4.5-8
4.5.3	CONTROL ROD DRIVE HOUSING SUPPORTS	4.5-14
4.5.4	REFERENCES FOR SECTION 4.5	4.5-15
4.6	<u>FUNCTIONAL DESIGN OF REACTIVITY CONTROL SYSTEMS</u>	4.6-1
4.6.1	INFORMATION FOR CRDS	4.6-1
4.6.2	EVALUATIONS OF THE CRDS	4.6-25
4.6.3	TESTING AND VERIFICATION OF THE CRDS	4.6-43
4.6.4	INFORMATION FOR COMBINED PERFORMANCE OF REACTIVITY CONTROL SYSTEMS	4.6-50
4.6.5	EVALUATION OF COMBINED PERFORMANCE	4.6-51
4.6.6	REFERENCES FOR SECTION 4.6	4.6-61
5.0	<u>REACTOR COOLANT SYSTEM AND CONNECTED SYSTEMS</u>	5.1-1
5.1	<u>SUMMARY DESCRIPTION</u>	5.1-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
5.1.1	SCHEMATIC FLOW DIAGRAM	5.1-4
5.1.2	PIPING AND INSTRUMENTATION DIAGRAM	5.1-4
5.1.3	ELEVATION DRAWINGS	5.1-5
5.2	<u>INTEGRITY OF REACTOR COOLANT PRESSURE BOUNDARY</u>	5.2-1
5.2.1	COMPLIANCE WITH CODES AND CODE CASES	5.2-1
5.2.2	OVERPRESSURIZATION PROTECTION	5.2-4
5.2.3	REACTOR COOLANT PRESSURE BOUNDARY MATERIALS	5.2-25
5.2.4	INSERVICE EXAMINATION AND PRESSURE TESTING OF REACTOR COOLANT PRESSURE BOUNDARY	5.2-43
5.2.5	DETECTION OF LEAKAGE THROUGH REACTOR COOLANT PRESSURE BOUNDARY	5.2-53
5.2.6	REFERENCES FOR SECTION 5.2	5.2-79
5.3	<u>REACTOR VESSEL</u>	5.3-1
5.3.1	REACTOR VESSEL MATERIALS	5.3-1
5.3.2	PRESSURE-TEMPERATURE LIMITS	5.3-13
5.3.3	REACTOR VESSEL INTEGRITY	5.3-16
5.3.4	REFERENCES FOR SECTION 5.3	5.3-28
5.4	<u>COMPONENT AND SUBSYSTEM DESIGN</u>	5.4-1
5.4.1	REACTOR RECIRCULATION PUMPS	5.4-1
5.4.2	STEAM GENERATORS (PWR)	5.4-8
5.4.3	REACTOR COOLANT PIPING	5.4-8
5.4.4	MAIN STEAM LINE FLOW RESTRICTORS	5.4-8
5.4.5	MAIN STEAM LINE ISOLATION SYSTEM	5.4-11
5.4.6	REACTOR CORE ISOLATION COOLING SYSTEM	5.4-20

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
5.4.7	RESIDUAL HEAT REMOVAL SYSTEM	5.4-39
5.4.8	REACTOR WATER CLEANUP SYSTEM	5.4-55
5.4.9	MAIN STEAM LINE AND FEEDWATER PIPING	5.4-60
5.4.10	PRESSURIZER	5.4-62
5.4.11	PRESSURIZER RELIEF DISCHARGE SYSTEM	5.4-62
5.4.12	VALVES	5.4-62
5.4.13	SAFETY AND RELIEF VALVES	5.4-65
5.4.14	COMPONENT SUPPORTS	5.4-66
5.4.15	REFERENCES FOR SECTION 5.4	5.4-68
6.0	<u>ENGINEERED SAFETY FEATURES</u>	6.1-1
6.1	<u>ENGINEERED SAFETY FEATURE MATERIALS</u>	6.1-1
6.1.1	METALLIC MATERIALS	6.1-1
6.1.2	ORGANIC MATERIALS	6.1-7
6.1.3	REFERENCES FOR SECTION 6.1	6.1-9
6.2	<u>CONTAINMENT SYSTEMS</u>	6.2-1
6.2.1	CONTAINMENT FUNCTIONAL DESIGN	6.2-1
6.2.2	CONTAINMENT HEAT REMOVAL SYSTEM	6.2-59
6.2.3	SECONDARY CONTAINMENT FUNCTIONAL DESIGN	6.2-70
6.2.4	CONTAINMENT ISOLATION SYSTEM	6.2-78
6.2.5	COMBUSTIBLE GAS CONTROL IN CONTAINMENT	6.2-112
6.2.6	CONTAINMENT LEAKAGE TESTING	6.2-126
6.2.7	SUPPRESSION POOL MAKEUP SYSTEM	6.2-132
6.2.8	HYDROGEN CONTROL SYSTEM	6.2-142

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
6.2.9	REFERENCES FOR SECTION 6.2	6.2-150
6.3	<u>EMERGENCY CORE COOLING SYSTEM</u>	6.3-1
6.3.1	DESIGN BASES AND SUMMARY DESCRIPTION	6.3-1
6.3.2	SYSTEM DESIGN	6.3-9
6.3.3	PERFORMANCE EVALUATION	6.3-39
6.3.4	TESTS AND INSPECTIONS	6.3-52
6.3.5	INSTRUMENTATION REQUIREMENTS	6.3-57
6.3.6	REFERENCES FOR SECTION 6.3	6.3-58
6.4	<u>HABITABILITY SYSTEMS</u>	6.4-1
6.4.1	DESIGN BASES	6.4-1
6.4.2	SYSTEM DESIGN	6.4-4
6.4.3	SYSTEM OPERATIONAL PROCEDURES	6.4-12
6.4.4	DESIGN EVALUATION	6.4-14
6.4.5	TESTING AND INSPECTION	6.4-18
6.4.6	INSTRUMENTATION REQUIREMENTS	6.4-19a
6.5	<u>FISSION PRODUCT REMOVAL AND CONTROL SYSTEMS</u>	6.5-1
6.5.1	ENGINEERED SAFETY FEATURES (ESF) FILTER SYSTEMS	6.5-1
6.5.2	CONTAINMENT SPRAY SYSTEM	6.5-9
6.5.3	FISSION PRODUCT CONTROL SYSTEMS	6.5-15
6.5.4	ICE CONDENSER AS A FISSION PRODUCT CLEANUP SYSTEM	6.5-24
6.5.5	REFERENCES FOR SECTION 6.5	6.5-24
6.6	<u>INSERVICE INSPECTION OF CLASS 2 AND 3 COMPONENTS</u>	6.6-1
6.6.1	COMPONENTS SUBJECT TO EXAMINATION	6.6-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
6.6.2	ACCESSIBILITY	6.6-1
6.6.3	EXAMINATION TECHNIQUES AND PROCEDURES	6.6-1
6.6.4	INSPECTION INTERVALS	6.6-2
6.6.5	EXAMINATION CATEGORIES AND REQUIREMENTS	6.6-2
6.6.6	EVALUATION OF EXAMINATION RESULTS	6.6-2
6.6.7	SYSTEM PRESSURE TESTS	6.6-3
6.6.8	AUGMENTED INSERVICE INSPECTION TO PROTECT AGAINST POSTULATED PIPING FAILURES	6.6-3
6.7	<u>MAIN STEAM LINE ISOLATION VALVE LEAKAGE CONTROL SYSTEM</u>	6.7-1
6.8	<u>SAFETY-RELATED INSTRUMENT AIR SYSTEM</u>	6.8-1
6.8.1	DESIGN BASES	6.8-1
6.8.2	SYSTEM DESIGN	6.8-1
6.8.3	DESIGN EVALUATION	6.8-3
6.8.4	TESTS AND INSPECTIONS	6.8-4
6.8.5	INSTRUMENTATION REQUIREMENTS	6.8-5
6.9	<u>FEEDWATER LEAKAGE CONTROL SYSTEM</u>	6.9-1
6.9.1	DESIGN BASES	6.9-1
6.9.2	SYSTEM DESCRIPTION	6.9-2
6.9.3	DESIGN EVALUATION	6.9-5
6.9.4	TESTS AND INSPECTIONS	6.9-6
6.9.5	INSTRUMENTATION REQUIREMENTS	6.9-6
7.0	<u>INSTRUMENTATION AND CONTROLS SYSTEMS</u>	7.1-1
7.1	<u>INTRODUCTION</u>	7.1-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
7.1.1	IDENTIFICATION OF SAFETY-RELATED SYSTEMS	7.1-1
7.1.2	IDENTIFICATION OF SAFETY CRITERIA	7.1-7
7.1.3	PLANT PROTECTION SYSTEM-ELECTRONIC TRIP SYSTEM	7.1-17
7.2	<u>REACTOR TRIP SYSTEM - REACTOR PROTECTION SYSTEM (RPS)</u>	7.2-1
7.2.1	DESCRIPTION	7.2-1
7.2.2	ANALYSIS	7.2-22
7.3	<u>ENGINEERED SAFETY FEATURE SYSTEMS</u>	7.3-1
7.3.1	DESCRIPTION	7.3-1
7.3.2	ANALYSIS	7.3-68
7.4	<u>SYSTEMS REQUIRED FOR SAFE SHUTDOWN</u>	7.4-1
7.4.1	DESCRIPTION	7.4-1
7.4.2	ANALYSIS	7.4-27
7.5	<u>SAFETY-RELATED DISPLAY INSTRUMENTATION</u>	7.5-1
7.5.1	DESCRIPTION	7.5-1
7.5.2	ANALYSIS	7.5-11
7.6	<u>ALL OTHER INSTRUMENTATION SYSTEMS REQUIRED FOR SAFETY</u>	7.6-1
7.6.1	DESCRIPTION	7.6-1
7.6.2	ANALYSIS	7.6-48
7.7	<u>CONTROL SYSTEMS NOT REQUIRED FOR SAFETY</u>	7.7-1
7.7.1	DESCRIPTION	7.7-1
7.7.2	ANALYSIS	7.7-50
8.0	<u>ELECTRIC POWER</u>	8.1-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
8.1	INTRODUCTION	8.1-1
8.1.1	SAFETY LOADS	8.1-2
8.1.2	REFERENCES FOR SECTION 8.1	8.1-3
8.2	<u>OFFSITE POWER SYSTEM</u>	8.2-1
8.2.1	DESCRIPTION	8.2-1
8.2.2	ANALYSIS	8.2-6
8.3	<u>ONSITE POWER SYSTEMS</u>	8.3-1
8.3.1	AC POWER SYSTEMS	8.3-1
8.3.2	DC POWER SYSTEMS	8.3-90
8.3.3	FIRE PROTECTION FOR CABLE SYSTEMS	8.3-100
8.3.4	REFERENCES FOR SECTION 8.3	8.3-101
9.0	<u>AUXILIARY SYSTEMS</u>	9.1-1
9.1	<u>FUEL STORAGE AND HANDLING</u>	9.1-1
9.1.1	NEW FUEL STORAGE	9.1-1
9.1.2	SPENT FUEL STORAGE	9.1-8
9.1.3	SPENT FUEL POOL COOLING AND CLEANUP SYSTEM	9.1-29
9.1.4	FUEL HANDLING SYSTEM	9.1-41
9.1.5	CONTROL OF HEAVY LOADS OVER OR NEAR SPENT FUEL AND OTHER CRITICAL PLANT SYSTEMS/COMPONENTS	9.1-82
9.1.6	REFERENCES FOR SECTION 9.1	9.1-83
9.2	<u>WATER SYSTEMS</u>	9.2-1
9.2.1	EMERGENCY SERVICE WATER SYSTEM	9.2-1
9.2.2	EMERGENCY CLOSED COOLING SYSTEMS	9.2-23
9.2.3	DEMINERALIZED WATER MAKEUP SYSTEM	9.2-35

# MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.2.4	POTABLE WATER SYSTEM	9.2-37
9.2.5	ULTIMATE HEAT SINK	9.2-39
9.2.6	CONDENSATE STORAGE FACILITIES	9.2-43
9.2.7	SERVICE WATER SYSTEM	9.2-46
9.2.8	NUCLEAR CLOSED COOLING SYSTEM	9.2-50
9.2.9	TURBINE BUILDING CLOSED COOLING SYSTEM	9.2-60
9.2.10	ALTERNATE DECAY HEAT REMOVAL SYSTEM	9.2-64
9.3	<u>PROCESS AUXILIARIES</u>	9.3-1
9.3.1	COMPRESSED AIR SYSTEMS	9.3-1
9.3.2	PROCESS SAMPLING SYSTEM	9.3-4
9.3.3	EQUIPMENT AND FLOOR DRAINAGE SYSTEM	9.3-11
9.3.4	CHEMICAL AND VOLUME CONTROL SYSTEM	9.3-23
9.3.5	STANDBY LIQUID CONTROL (SLC) SYSTEM	9.3-23
9.3.6	POST ACCIDENT SAMPLING SYSTEM	9.3-37
9.3.7	ZINC INJECTION SYSTEM	9.3-42
9.3.8	HYDROGEN WATER CHEMISTRY SYSTEM	9.3-43
9.4	<u>AIR CONDITIONING, HEATING, COOLING AND VENTILATING SYSTEMS</u>	9.4-1
9.4.1	CONTROL COMPLEX HVAC SYSTEMS	9.4-1
9.4.2	FUEL HANDLING AREA VENTILATION SYSTEM	9.4-20
9.4.3	AUXILIARY AND RADWASTE AREA VENTILATION SYSTEMS	9.4-27
9.4.4	TURBINE BUILDING AREA VENTILATION SYSTEM	9.4-44
9.4.5	ENGINEERED SAFETY FEATURES VENTILATION SYSTEM	9.4-55
9.4.6	REACTOR BUILDING VENTILATION SYSTEMS	9.4-68



MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
9.4.7	INTERMEDIATE BUILDING VENTILATION SYSTEM	9.4-90
9.4.8	TURBINE POWER COMPLEX VENTILATION SYSTEM	9.4-99
9.4.9	CHILLED WATER SYSTEMS	9.4-103
9.4.10	BUILDING HEATING SYSTEM	9.4-117
9.4.11	OFFGAS CHARCOAL VAULT REFRIGERATION SYSTEM	9.4-127
9.4.12	MISCELLANEOUS NONSAFETY HVAC SYSTEMS	9.4-142
9.5	<u>OTHER AUXILIARY SYSTEMS</u>	9.5-1
9.5.1	FIRE PROTECTION SYSTEM	9.5-1
9.5.2	COMMUNICATIONS SYSTEMS	9.5-30
9.5.3	LIGHTING SYSTEMS	9.5-35
9.5.4	DIESEL GENERATOR FUEL OIL STORAGE AND TRANSFER SYSTEM	9.5-41
9.5.5	DIESEL GENERATOR COOLING WATER SYSTEM	9.5-51
9.5.6	DIESEL GENERATOR STARTING AIR SYSTEM	9.5-58
9.5.7	DIESEL GENERATOR LUBRICATION SYSTEM	9.5-63
9.5.8	DIESEL GENERATOR COMBUSTION AIR INTAKE AND EXHAUST SYSTEM	9.5-68
9.5.9	HIGH PRESSURE CORE SPRAY DIESEL GENERATOR	9.5-77
9.5.10	AUXILIARY STEAM SYSTEM	9.5-107
9.5.11	REFERENCES FOR SECTION 9.5	9.5-109
APPENDIX 9A	<u>FIRE PROTECTION EVALUATION REPORT</u>	APP. 9A TAB
10.0	<u>STEAM AND POWER CONVERSION SYSTEM</u>	10.1-1
10.1	<u>SUMMARY DESCRIPTION</u>	10.1-1
10.2	<u>TURBINE GENERATOR</u>	10.2-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
10.2.1	DESIGN BASES	10.2-1
10.2.2	DESCRIPTION	10.2-2
10.2.3	TURBINE DISK INTEGRITY	10.2-11
10.2.4	EVALUATION	10.2-17
10.2.5	HYDROGEN AND CARBON DIOXIDE SYSTEMS	10.2-19
10.2.6	REFERENCES FOR SECTION 10.2	10.2-23
10.3	<u>MAIN STEAM SUPPLY SYSTEM</u>	10.3-1
10.3.1	DESIGN BASES	10.3-1
10.3.2	DESCRIPTION	10.3-2
10.3.3	EVALUATION	10.3-2
10.3.4	INSPECTION AND TESTING REQUIREMENTS	10.3-3
10.3.5	WATER CHEMISTRY (PWR)	10.3-4
10.3.6	STEAM AND FEEDWATER SYSTEM MATERIALS	10.3-4
10.4	<u>OTHER FEATURES OF STEAM AND POWER CONVERSION SYSTEM</u>	10.4-1
10.4.1	MAIN CONDENSER	10.4-1
10.4.2	MAIN CONDENSER EVACUATION SYSTEM	10.4-9
10.4.3	TURBINE GLAND SEALING SYSTEM	10.4-12
10.4.4	TURBINE BYPASS SYSTEM	10.4-16
10.4.5	CIRCULATING WATER SYSTEM	10.4-21
10.4.6	CONDENSATE CLEANUP SYSTEM	10.4-30
10.4.7	CONDENSATE AND FEEDWATER SYSTEM	10.4-36
10.4.8	STEAM GENERATOR BLOWDOWN SYSTEM	10.4-45
10.4.9	AUXILIARY FEEDWATER SYSTEM	10.4-46

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
10.4.10	REFERENCES FOR SECTION 10.4	10.4-46
11.0	<u>RADIOACTIVE WASTE MANAGEMENT</u>	11.1-1
11.1	<u>SOURCE TERMS</u>	11.1-1
11.1.1	FISSION PRODUCTS	11.1-2
11.1.2	ACTIVATION PRODUCTS	11.1-10
11.1.3	TRITIUM	11.1-11
11.1.4	FUEL FISSION PRODUCTION INVENTORY AND FUEL EXPERIENCE	11.1-15
11.1.5	PROCESS LEAKAGE SOURCES	11.1-16
11.1.6	LIQUID RADWASTE SYSTEM	11.1-17
11.1.7	RADIOACTIVE SOURCES IN THE GAS TREATMENT SYSTEM	11.1-17
11.1.8	SOURCE TERMS FOR COMPONENT FAILURES	11.1-17
11.1.9	REFERENCES FOR SECTION 11.1	11.1-18
11.2	<u>LIQUID WASTE MANAGEMENT SYSTEMS</u>	11.2-1
11.2.1	DESIGN BASES	11.2-1
11.2.2	SYSTEM DESCRIPTION	11.2-7
11.2.3	RADIOACTIVE RELEASES	11.2-21
11.2.4	REFERENCES FOR SECTION 11.2	11.2-22
11.3	<u>GASEOUS WASTE MANAGEMENT SYSTEMS</u>	11.3-1
11.3.1	DESIGN BASES	11.3-1
11.3.2	SYSTEM DESCRIPTION	11.3-3
11.3.3	RADIOACTIVE RELEASES	11.3-23
11.3.4	REFERENCES FOR SECTION 11.3	11.3-25

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
11.4	<u>SOLID RADIOACTIVE WASTE MANAGEMENT SYSTEM</u>	11.4-1
11.4.1	DESIGN BASES	11.4-1
11.4.2	SYSTEM DESCRIPTION	11.4-4
11.4.3	REFERENCES FOR SECTION 11.4	11.4-16
11.5	<u>PROCESS AND EFFLUENT RADIOLOGICAL MONITORING AND SAMPLING SYSTEMS</u>	11.5-1
11.5.1	DESIGN BASES	11.5-1
11.5.2	SYSTEM DESCRIPTION	11.5-6
11.5.3	EFFLUENT MONITORING AND SAMPLING	11.5-21
11.5.4	PROCESS MONITORING AND SAMPLING	11.5-22
12.0	<u>RADIATION PROTECTION</u>	12.1-1
12.1	<u>ENSURING THAT OCCUPATIONAL RADIATION EXPOSURES ARE AS LOW AS REASONABLY ACHIEVABLE (ALARA)</u>	12.1-1
12.1.1	POLICY CONSIDERATIONS	12.1-1
12.1.2	DESIGN CONSIDERATIONS	12.1-2
12.1.3	OPERATIONAL CONSIDERATIONS	12.1-7
12.2	<u>RADIATION SOURCES</u>	12.2-1
12.2.1	CONTAINED SOURCES	12.2-1
12.2.2	AIRBORNE RADIOACTIVE MATERIAL SOURCES	12.2-11
12.2.3	REFERENCES FOR SECTION 12.2	12.2-14
12.3	<u>RADIATION PROTECTION DESIGN FEATURES</u>	12.3-1
12.3.1	FACILITY DESIGN FEATURES	12.3-1
12.3.2	SHIELDING	12.3-8
12.3.3	VENTILATION	12.3-19

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
12.3.4	AREA RADIATION AND AIRBORNE RADIOACTIVITY MONITORING INSTRUMENTATION	12.3-24
12.3.5	REFERENCES FOR SECTION 12.3	12.3-68
12.4	<u>DOSE ASSESSMENT</u>	12.4-1
12.4.1	ESTIMATES OF PERSONNEL OCCUPANCY REQUIREMENTS	12.4-1
12.4.2	ESTIMATES OF ANNUAL PERSON-REM DOSES	12.4-2
12.4.3	ESTIMATED INHALATION DOSES	12.4-3
12.4.4	ESTIMATED ANNUAL DOSE OUTSIDE THE NUCLEAR FACILITY AT THE BOUNDARY OF THE RESTRICTED AREA	12.4-5
12.4.5	REFERENCES FOR SECTION 12.4	12.4-10
12.5	<u>RADIATION PROTECTION PROGRAM</u>	12.5-1
12.5.1	ORGANIZATION	12.5-1
12.5.2	EQUIPMENT, INSTRUMENTATION AND FACILITIES	12.5-2
12.5.3	HEALTH PHYSICS INSTRUCTIONS	12.5-9
12.6	<u>DESIGN REVIEW OF PLANT SHIELDING FOR SPACES/ SYSTEMS WHICH MAY BE USED IN POSTACCIDENT OPERATIONS OUTSIDE CONTAINMENT</u>	12.6-1
12.6.1	INTRODUCTION	12.6-1
12.6.2	RADIOACTIVE SOURCE RELEASES	12.6-2
12.6.3	RADIOACTIVE SOURCE DISTRIBUTION	12.6-3
12.6.4	SYSTEMS CONTAINING RADIOACTIVE SOURCES	12.6-6
12.6.5	SHIELDING REVIEW	12.6-8a
12.6.6	AREAS REQUIRING PERSONNEL ACCESS	12.6-9
12.6.7	POSTACCIDENT RADIATION ZONE DRAWINGS AND SUMMARY	12.6-11

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
12.6.8	REFERENCES FOR SECTION 12.6	12.6-11
13.0	<u>CONDUCT OF OPERATIONS</u>	13.1-1
13.1	<u>ORGANIZATIONAL STRUCTURE OF APPLICANT</u>	13.1-1
13.1.1	MANAGEMENT AND TECHNICAL SUPPORT ORGANIZATION	13.1-1
13.1.2	OPERATING ORGANIZATION	13.1-14
13.1.3	QUALIFICATIONS OF PERSONNEL	13.1-25
13.1.4	REFERENCES FOR SECTION 13.1	13.1-26
13.2	<u>TRAINING PROGRAM</u>	13.2-1
13.2.1	PERRY STAFF TRAINING PROGRAM	13.2-1
13.2.2	LICENSED OPERATOR TRAINING PROGRAM	13.2-2
13.2.3	TRAINING PROGRAMS FOR NON-LICENSED PERSONNEL	13.2-9
13.2.4	PLANT ACCESS TRAINING	13.2-12
13.2.5	FIRE PROTECTION TRAINING	13.2-13
13.3	<u>EMERGENCY PLANNING</u>	13.3-1
13.3.1	REFERENCE FOR SECTION 13.3	13.3-2
13.4	<u>REVIEW AND AUDIT</u>	13.4-1
13.4.1	PLANT OPERATIONS REVIEW COMMITTEE	13.4-2
13.4.2	COMPANY NUCLEAR REVIEW BOARD	13.4-2
13.4.3	(DELETED)	13.4-3
13.4.4	FENOC OVERSIGHT DEPARTMENT	13.4-3
13.5	<u>PLANT PROCEDURES</u>	13.5-1
13.5.1	PROCEDURES AND INSTRUCTIONS	13.5-2
13.5.2	OPERATING AND MAINTENANCE INSTRUCTIONS	13.5-5

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
13.6	<u>INDUSTRIAL SECURITY</u>	13.6-1
13.6.1	SECURITY PLAN	13.6-1
13.6.2	SECURITY ORGANIZATION	13.6-1
13.6.3	SECURITY PROCEDURES	13.6-2
14.0	<u>INITIAL TEST PROGRAM</u>	14.1-1
14.1	<u>SPECIFIC INFORMATION TO BE INCLUDED IN PRELIMINARY SAFETY ANALYSIS REPORTS</u>	14.1-1
14.2	<u>PERRY NUCLEAR POWER PLANT TEST PROGRAM</u>	14.2-1
14.2.1	SUMMARY OF TEST PROGRAM AND OBJECTIVES	14.2-1
14.2.2	ORGANIZATION AND STAFFING	14.2-5
14.2.3	TEST PROCEDURES	14.2-23
14.2.4	CONDUCT OF TEST PROGRAM	14.2-25
14.2.5	REVIEW, EVALUATION AND APPROVAL OF TEST RESULTS	14.2-28
14.2.6	TEST RECORDS	14.2-30
14.2.7	CONFORMANCE OF THE TEST PROGRAM WITH REGULATORY GUIDES	14.2-30
14.2.8	UTILIZATION OF REACTOR OPERATING AND TESTING EXPERIENCES IN THE DEVELOPMENT OF THE TEST PROGRAM	14.2-30
14.2.9	TRIAL USE OF PLANT OPERATING AND EMERGENCY PROCEDURES	14.2-31
14.2.10	INITIAL FUEL LOADING AND INITIAL CRITICALITY	14.2-31
14.2.11	TEST PROGRAM SCHEDULE	14.2-33
14.2.12	INDIVIDUAL TEST DESCRIPTIONS	14.2-34
15.0	<u>ACCIDENT ANALYSIS</u>	15.0-1
15.0	<u>GENERAL</u>	15.0-1

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
15.0.1	ANALYTICAL OBJECTIVE	15.0-2
15.0.2	ANALYTICAL CATEGORIES	15.0-3
15.0.3	EVENT EVALUATION	15.0-5
15.0.4	NUCLEAR SAFETY OPERATIONAL ANALYSIS (NSOA) RELATIONSHIP	15.0-17a
15.0.5	EXTENDED OPERATING DOMAINS AND MODES OF OPERATION	15.0-18
15.0.6	RELOAD SAFETY ANALYSIS	15.0-21
15.0.7	REFERENCES FOR SECTION 15.0	15.0-23
15.1	<u>DECREASE IN REACTOR COOLANT TEMPERATURE</u>	15.1-1
15.1.1	LOSS OF FEEDWATER HEATING	15.1-1
15.1.2	FEEDWATER CONTROLLER FAILURE - MAXIMUM DEMAND	15.1-8
15.1.3	PRESSURE REGULATOR FAILURE - OPEN	15.1-13
15.1.4	INADVERTENT SAFETY/RELIEF VALVE OPENING	15.1-20
15.1.5	SPECTRUM OF STEAM SYSTEM PIPING FAILURES INSIDE AND OUTSIDE OF CONTAINMENT IN A PWR	15.1-23
15.1.6	INADVERTENT RHR SHUTDOWN COOLING OPERATION	15.1-23
15.1.7	REFERENCES FOR SECTION 15.1	15.1-25
15.2	<u>INCREASE IN REACTOR PRESSURE</u>	15.2-1
15.2.1	PRESSURE REGULATOR FAILURE - CLOSED	15.2-1
15.2.2	GENERATOR LOAD REJECTION	15.2-7
15.2.3	TURBINE TRIP	15.2-13
15.2.4	MSIV CLOSURE	15.2-21
15.2.5	LOSS OF CONDENSER VACUUM	15.2-30
15.2.6	LOSS OF AC POWER	15.2-35



MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
15.2.7	LOSS OF FEEDWATER FLOW	15.2-41
15.2.8	FEEDWATER LINE BREAK	15.2-45
15.2.9	FAILURE OF RHR SHUTDOWN COOLING	15.2-45
15.2.10	LOSS OF INSTRUMENT AIR	15.2-53
15.2.11	REFERENCES FOR 15.2	15.2-55
15.3	<u>DECREASE IN REACTOR COOLANT SYSTEM FLOW RATE</u>	15.3-1
15.3.1	RECIRCULATION PUMP TRIP	15.3-1
15.3.2	RECIRCULATION FLOW CONTROL FAILURE - DECREASING FLOW	15.3-6
15.3.3	RECIRCULATION PUMP SEIZURE	15.3-11
15.3.4	RECIRCULATION PUMP SHAFT BREAK	15.3-15
15.3.5	REFERENCES FOR SECTION 15.3	15.3-19
15.4	<u>REACTIVITY AND POWER DISTRIBUTION ANOMALIES</u>	15.4-1
15.4.1	ROD WITHDRAWAL ERROR - LOW POWER	15.4-1
15.4.2	ROD WITHDRAWAL ERROR AT POWER	15.4-6
15.4.3	CONTROL ROD MALOPERATION (SYSTEM MALFUNCTION OR OPERATOR ERROR)	15.4-10
15.4.4	ABNORMAL STARTUP OF IDLE RECIRCULATION PUMP	15.4-10
15.4.5	RECIRCULATION FLOW CONTROL FAILURE WITH INCREASING FLOW	15.4-14
15.4.6	CHEMICAL AND VOLUME CONTROL SYSTEM MALFUNCTIONS	15.4-19
15.4.7	MISPLACED BUNDLE ACCIDENT	15.4-19
15.4.8	SPECTRUM OF ROD EJECTION ASSEMBLIES	15.4-22
15.4.9	CONTROL ROD DROP ACCIDENT (CRDA)	15.4-23
15.4.10	REFERENCES FOR SECTION 15.4	15.4-31

# MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
15.5	<u>INCREASE IN REACTOR COOLANT INVENTORY</u>	15.5-1
15.5.1	INADVERTENT HPCS STARTUP	15.5-1
15.5.2	CHEMICAL VOLUME CONTROL SYSTEM MALFUNCTION (OR OPERATOR ERROR)	15.5-4
15.5.3	BWR TRANSIENTS WHICH INCREASE REACTOR COOLANT INVENTORY	15.5-4
15.6	<u>DECREASE IN REACTOR COOLANT INVENTORY</u>	15.6-1
15.6.1	INADVERTENT SAFETY/RELIEF VALVE OPENING	15.6-1
15.6.2	INSTRUMENT LINE PIPE BREAK	15.6-1
15.6.3	STEAM GENERATOR TUBE FAILURE	15.6-8
15.6.4	STEAM SYSTEM PIPING BREAK OUTSIDE CONTAINMENT	15.6-8
15.6.5	LOSS-OF-COOLANT ACCIDENTS (RESULTING FROM SPECTRUM OF POSTULATED PIPING BREAKS WITHIN THE REACTOR COOLANT PRESSURE BOUNDARY) - INSIDE CONTAINMENT	15.6-16
15.6.6	FEEDWATER LINE BREAK - OUTSIDE CONTAINMENT	15.6-38
15.6.7	REFERENCES FOR SECTION 15.6	15.6-43a
15.7	<u>RADIOACTIVE RELEASE FROM SUBSYSTEMS AND COMPONENTS</u>	15.7-1
15.7.1	RADIOACTIVE GAS WASTE SYSTEM LEAK OR FAILURE	15.7-1
15.7.2	RADIOACTIVE LIQUID WASTE SYSTEM FAILURES (RELEASE TO ATMOSPHERE)	15.7-15
15.7.3	POSTULATED RADIOACTIVE RELEASES DUE TO LIQUID-CONTAINING TANK FAILURES	15.7-17
15.7.4	FUEL HANDLING ACCIDENT OUTSIDE CONTAINMENT	15.7-21
15.7.5	SPENT FUEL CASK DROP ACCIDENTS	15.7-30
15.7.6	FUEL HANDLING ACCIDENT INSIDE CONTAINMENT	15.7-31

MASTER TABLE OF CONTENTS (Continued)

<u>Section</u>	<u>Title</u>	<u>Page</u>
15.7.7	REFERENCES FOR SECTION 15.7	15.7-37
15.8	<u>OTHER EVENTS</u>	15.8-1
15.8.1	ANTICIPATED TRANSIENTS WITHOUT SCRAM (ATWS)	15.8-1
15.8.2	STATION BLACKOUT (SBO)	15.8-2
APPENDIX 15A	<u>PLANT NUCLEAR SAFETY OPERATIONAL ANALYSIS (NSOA)</u>	APP. 15A TAB
APPENDIX 15B	<u>RELOAD SAFETY ANALYSIS</u>	APP. 15B TAB
APPENDIX 15C	<u>ANTICIPATED TRANSIENTS WITHOUT SCRAM (ATWS)</u>	APP. 15C TAB
APPENDIX 15D	<u>PARTIAL FEEDWATER HEATING OPERATION ANALYSIS</u>	APP. 15D TAB
APPENDIX 15E	<u>PNPP MAXIMUM EXTENDED OPERATING DOMAIN ANALYSIS</u>	APP. 15E TAB
APPENDIX 15F	<u>PNPP SINGLE LOOP OPERATION ANALYSIS</u>	APP. 15F TAB
APPENDIX 15G	<u>CONTROL SYSTEM INTERACTIONS</u>	APP. 15G TAB
APPENDIX 15H	<u>STATION BLACKOUT (SBO)</u>	APP. 15H TAB
16.0	<u>TECHNICAL SPECIFICATIONS</u>	16.0-1
17.0	<u>QUALITY ASSURANCE</u>	17.0-1
17.1	(DELETED)	
17.2	<u>QUALITY ASSURANCE DURING THE OPERATIONS PHASE</u>	17.2-1