

AUXILIARY SYSTEMS

TABLE OF CONTENTS

	<u>Title</u>	
10.0	Auxiliary Systems.....	10.1.1
10.1	Summary Description.....	10.1-1
10.2	New Fuel Storage	10.2-1
	10.2.1 Power Generation Objective	10.2-1
	10.2.2 Power Generation Design Basis	10.2-1
	10.2.3 Safety Design Basis	10.2-1
	10.2.4 Description	10.2-1
	10.2.5 Safety Evaluation	10.2-2
10.3	Spent Fuel Storage	10.3-1
	10.3.1 Power Generation Objective	10.3-1
	10.3.2 Power Generation Design Basis	10.3-1
	10.3.3 Safety Design Basis	10.3-1
	10.3.4 Description	10.3-1
	10.3.5 Safety Evaluation	10.3-3
	10.3.6 Inspection and Testing	10.3-6
10.4	Tools and Servicing Equipment	10.4-1
	10.4.1 Introduction	10.4-1
	10.4.2 Fuel Servicing Equipment	10.4-1
	10.4.3 Servicing Aids	10.4-2
	10.4.4 Reactor Vessel Servicing Equipment.....	10.4-3
	10.4.5 In Vessel Servicing Equipment.....	10.4-4
	10.4.6 Refueling Equipment.....	10.4-4
	10.4.7 Storage Equipment	10.4-5
	10.4.8 Under Reactor Vessel Servicing Equipment	10.4-5
	10.4.9 Storage Pit	10.4-6
	10.4.10 Spent Fuel Shipping Cask Decontamination.....	10.4-6
10.5	Fuel Pool Cooling and Cleanup System	10.5-1
	10.5.1 Power Generation Objective	10.5-1
	10.5.2 Safety Design Basis	10.5-1
	10.5.3 Power Generation Design Basis	10.5-1

AUXILIARY SYSTEMS

TABLE OF CONTENTS (Cont'd)

	10.5.4	Description	10.5-1
	10.5.5	Safety Evaluation	10.5-5
	10.5.6	Inspection and Testing	10.5-7
10.6		Reactor Building Closed Cooling Water System	10.6-1
	10.6.1	Power Generation Objective	10.6-1
	10.6.2	Power Generation Design Basis	10.6-1
	10.6.3	Safety Design Basis	10.6-1
	10.6.4	Description	10.6-1
	10.6-5	Safety Evaluation	10.6-3
	10.6.6	Inspection and Testing	10.6-3
10.7		Raw Cooling Water System	10.7-1
	10.7.1	Power Generation Objective	10.7-1
	10.7.2	Power Generation Design Basis	10.7-1
	10.7.3	Description	10.7-1
	10.7.4	Inspection and Testing	10.7-2
10.8		Raw Service Water System	10.8-1
	10.8.1	Power Generation Objective	10.8-1
	10.8.2	Power Generation Design Basis	10.8-1
	10.8.3	Description	10.8-1
	10.8.4	Inspection and Testing	10.8-2
10.9		RHR Service Water System	10.9-1
	10.9.1	Safety Objective	10.9-1
	10.9.2	Safety Design Basis	10.9-1
	10.9.3	Description	10.9-1
	10.9.4	Safety Evaluation	10.9-3
	10.9.5	Inspection and Testing	10.9-4
10.10		Emergency Equipment Cooling Water System	10.10-1
	10.10.1	Safety Objective	10.10-1
	10.10.2	Safety Design Basis	10.10-1
	10.10.3	Description	10.10-1
	10.10.4	Safety Evaluation	10.10-3
	10.10.5	Inspection and Testing	10.10-4

AUXILIARY SYSTEMS

TABLE OF CONTENTS (Cont'd)

10.11	Fire Protection	10.11-1
10.11.1	Design Basis Summary	10.11-1
10.11.2	System Description	10.11-4
10.11.3	Safety Evaluation	10.11-5
10.11.4	Fire Protection Program Documentation, Configuration Control, And Quality Assurance.....	10.11-6
10.12	Heating, Ventilating And Air-Conditioning Systems	10.12-1
10.12.1	Safety Objective	10.12-1
10.12.2	Power Generation Objective	10.12-1
10.12.3	Safety Design Basis	10.12-1
10.12.4	Power Generation Design Basis	10.12-1
10.12.5	Description	10.12-2
10.12.6	Safety Evaluation	10.12-9
10.12.7	Inspection and Testing	10.12-10
10.13	Demineralized Water System.....	10.13-1
10.13.1	Power Generation Objective	10.13-1
10.13.2	Power Generation Design Basis	10.13-1
10.13.3	Description	10.13-1
10.13.4	Inspection and Testing	10.13-2
10.14	Control And Service Air Systems	10.14-1
10.14.1	Power Generation Objective	10.14-1
10.14.2	Power Generation Design Basis	10.14-1
10.14.3	Safety Design Basis	10.14-1
10.14.4	Description	10.14-1
10.14.5	Safety Evaluation	10.14-5
10.14.6	Inspection and Testing	10.14-5
10.15	Potable Water And Sanitary Systems	10.15-1
10.16	Equipment And Floor Drainage Systems	10.16-1
10.16.1	Power Generation Objective	10.16-1
10.16.2	Power Generation Design Basis	10.16-1
10.16.3	Safety Design Basis	10.16-1
10.16.4	Description	10.16-1
10.16.5	Safety Evaluation	10.16-5
10.16.6	Inspection and Testing	10.16-5

10.17	Process Sampling Systems	10.17-1
10.17.1	Power Generation Objective	10.17-1
10.17.2	Power Generation Design Basis	10.17-1
10.17.3	Description	10.17-1
10.17.4	Inspections and Tests	10.17-4
10.17.5	Power Generation Evaluation	10.17-4
10.18	Plant Communications System	10.18-1
10.18.1	Design Basis	10.18-1
10.18.2	Onsite Communications - General	10.18-1
10.18.3	Offsite Communications - General	10.18-3
10.18.4	Evaluation	10.18-5
10.18.5	Inspection and Tests	10.18-6
10.18.6	Accountability Alarm System.....	10.18-6
10.19	Lighting System	10.19-1
10.20	Auxiliary Boiler System	10.20-1
10.20.1	Power Generation Design Basis	10.20-1
10.20.2	Description	10.20-1
10.21	Postaccident Sampling System.....	10.21-1
10.21.1	Power Generation Objective	10.21-1
10.21.2	Power Generation Design Basis	10.21-1
10.21.3	Description	10.21-2
10.21.4	Safety Evaluation	10.21-3
10.21.5	Inspections and Tests	10.21-4
10.22	Auxiliary Decay Heat Removal System.....	10.22-1
10.22.1	Power Generation Objective	10.22-1
10.22.2	Power Generation Design Basis	10.22-1
10.22.3	Description	10.22-1
10.22.4	Safety Evaluation	10.22-1
10.22.5	Inspection and Testing	10.22-2

AUXILIARY SYSTEMS

TABLE OF CONTENTS (Cont'd)

10.23	Hydrogen Water Chemistry System (HWC).....	10.23-1
10.23.1	Power Generation Objective	10.23-1
10.23.2	Power Generation Design Basis	10.23-1
10.23.3	Description	10.23-2
10.23.4	Safety Evaluation	10.23-3
10.23.5	Inspection and Testing	10.23-4
10.24	Supplemental Diesel Generator System	10.24-1
10.24.1	Safety Objective	10.24-1
10.24.2	System Description	10.24-1
10.24.3	Safety Evaluation	10.24-2
10.24.4	Inspection and Testing	10.24-2
10.25	Emergency High Pressure Makeup (EHPM) System	
10.25.1	Power Generation Objective	10.25.1
10.25.2	Power Generation Design Basis	10.25-1
10.25.3	Safety Objective	10.25-1
10.25.4	Description	10.25-1
10.25.5	Safety Evaluation	10.25-2
10.25.6	Inspection and Testing	10.25-2

AUXILIARY SYSTEMS
LIST OF TABLES

<u>Table</u>	<u>Title</u>
10.4-1	Tools and Servicing Equipment
10.5-1	Fuel Pool Cooling and Cleanup System Specifications
10.6-1	Reactor Building Closed Cooling Water System and Equipment Data
10.6-2	Reactor Building Closed Cooling Water System Heat Exchanger Operating Conditions
10.6-3a	Reactor Building Closed Cooling Water System Heat Loads (3952 MWt)
10.6-3b	(Deleted)
10.11-1	Power Block Structures
10.17-1	Liquid Samples, Sheets 1-3
10.17-2	Gaseous Samples
10.21-1	PASS In-Line Instrumentation

BFN-29

AUXILIARY SYSTEMS
LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>
10.2-1a	(Deleted)
10.2-1b	(Deleted)
10.2-2	[REDACTED]
10.3-1	[REDACTED]
10.3-2	[REDACTED]
10.3-3	[REDACTED]
10.4-1	(Deleted)
10.4-2	(Deleted)
10.4-3	(Deleted)
10.4-4	(Deleted)
10.4-5	(Deleted)
10.4-6	(Deleted)
10.4-7	Spent Fuel Decontamination Facility
10.5-1a	Fuel Pool Cooling System, Flow Diagram
10.5-1b sht 1	Fuel Pool Cooling and Demineralizer System, Mechanical Control Diagram
10.5-1b sht 2	Fuel Pool Cooling and Demineralizer System - Mechanical Control Diagram
10.5-1b sht 3	Fuel Pool Cooling and Demineralizer System - Mechanical Control Diagram
10.5-1b sht 4	Fuel Pool Cooling and Demineralizer System - Mechanical Control Diagram
10.5-1c	Fuel Pool Cooling System - Flow Diagram
10.5-1d	Fuel Pool Cooling System - Flow Diagram
10.5-2 sht 1	Fuel Pool Filter Demineralizer, Flow Diagram
10.5-2 sht 2	Fuel Pool Filter Demineralizer - Flow Diagram
10.5-2 sht 3	Fuel Pool Filter Demineralizer - Flow Diagram
10.5-2 sht 4	Fuel Pool Filter Demineralizer - Flow Diagram
10.5-3	(Deleted)
10.5-4	(Deleted)
10.5-4a	(Deleted)
10.5-4b	(Deleted)
10.5-4c	(Deleted)
10.5-4d	(Deleted)
10.6-1a	Reactor Building Closed Cooling Water System, Flow Diagram
10.6-1b	Reactor Building Closed Cooling Water System, Flow Diagram
10.6-1c	Reactor Building Closed Cooling Water System - Flow Diagram
10.6-2a	(Deleted)
10.6-2b	(Deleted)
10.6-2c	(Deleted)
10.6-2d	(Deleted)
10.7-1a sht 1	Raw Cooling Water, Flow Diagram
10.7-1a sht 2	Raw Cooling Water - Flow Diagram
10.7-1a sht 3	Raw Cooling Water - Flow Diagram

AUXILIARY SYSTEMS
LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>
10.7-1b sht 1	Raw Cooling Water, Flow Diagram
10.7-1b sht 2	Raw Cooling Water - Flow Diagram
10.7-1b sht 3	Raw Cooling Water - Flow Diagram
10.7-1b sht 4	Raw Cooling Water - Flow Diagram
10.7-1b sht 5	Raw Cooling Water - Flow Diagram
10.7-1b sht 6	Raw Cooling Water - Flow Diagram
10.7-1b sht 7	Raw Cooling Water - Flow Diagram
10.7-2 sht 1	Raw Cooling Water System, Mechanical Control Diagram
10.7-2 sht 2	Raw Cooling Water System - Mechanical Control Diagram
10.7-2 sht 3	Raw Cooling Water System - Mechanical Control Diagram
10.7-2 sht 4	Raw Cooling Water System - Mechanical Control Diagram
10.7-2 sht 5	Raw Cooling Water System - Mechanical Control Diagram
10.7-2 sht 6	Raw Cooling Water System - Mechanical Control Diagram
10.9-1a sht 1	RHR Service Water System, Flow Diagram
10.9-1a sht 2	RHR Service Water System - Flow Diagram
10.9-1a sht 3	RHR Service Water System - Flow Diagram
10.9-1b	Raw, Potable, Demineralized Residual Heat Removal, Emergency Equipment Cooling Water and Comp. Air
10.9-2a	RHR Service Water System, Mechanical Control Diagram
10.9-2b	RHR Service Water System, Mechanical Control Diagram
10.9-2c	RHR Service Water System, Mechanical Control Diagram
10.9-2d	RHR Service Water System - Mechanical Control Diagram
10.9-2e	RHR Service Water System - Mechanical Control Diagram
10.9-3	(Deleted)
10.9-4	(Deleted)
10.10-1a	Emergency Equipment Cooling Water, Flow Diagram
10.10-1b	Emergency Equipment Cooling Water, Flow Diagram
10.10-1c	Emergency Equipment Cooling Water, Flow Diagram
10.10-1d	Emergency Equipment Cooling Water - Flow Diagram
10.10-2	Emergency Equipment Cooling Water System, Mechanical Control Diagram
10.10-3 sht 1	Emergency Equipment Cooling Water System, Mechanical Control Diagram
10.10-3 sht 2	Emergency Equipment Cooling Water System, Mechanical Control Diagram
10.10-3 sht 3	Emergency Equipment Cooling Water System, Mechanical Control Diagram
10.10-3 sht 4	Emergency Equipment Cooling Water System, Mechanical Control Diagram
10.10-4	(Deleted)
10.10-4a	(Deleted)
10.10-4b	(Deleted)
10.11-1	(Deleted)
10.11-1a	(Deleted)
10.11-1b	(Deleted)
10.11-2	(Deleted)

AUXILIARY SYSTEMS
LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>
10.11-3	(Deleted)
10.11-4	(Deleted)
10.11-5	(Deleted)
10.11-6	(Deleted)
10.11-7	(Deleted)
10.11-8	(Deleted)
10.11-9	(Deleted)
10.11-10	(Deleted)
10.11-11	(Deleted)
10.11-12	(Deleted)
10.12-1	Heating and Ventilating Air Flow, Flow Diagram
10.12-2	(Deleted)
10.12-2a	Ventilating and Air Conditioning Air Flow, Flow Diagram
10.12-2b	Ventilation and Air Conditioning Air Flow, Flow Diagram
10.12-2c	Ventilation and Air Conditioning Air Flow, Flow Diagram
10.12-3	Heating and Air Conditioning Hot and Chilled Water, Flow Diagram
10.12-4	Heating and Ventilating Air Flow, Flow Diagram
10.12-5	Heating, Ventilating, and Air Conditioning Air Flow
10.12-6	Heating, Ventilating, and Air Conditioning Air Flow
10.12-7	Heating and Ventilating Air Flow System - Flow Diagram
10.12-8	Heating and Ventilating Air Flow - Flow Diagram
10.12-9	Flow Diagram Air Conditioning Chilled Water
10.13-1 sht 1	(Deleted)
10.13-1 sht 2	(Deleted)
10.14-1 sht 1	Control Air System, Mechanical Control Diagram
10.14-1 sht 2	Control Air System - Mechanical Control Diagram
10.14-1 sht 3	Control Air System - Mechanical Control Diagram
10.14-2a	Compressed Air, Station Service, Flow Diagram
10.14-2b	Compressed Air, Station Service, Flow Diagram
10.14-3	Emergency Control Air Compressor for Control Room Ventilation System
10.14-4 sht 1	Control Air System, Mechanical Control Diagram
10.14-4 sht 2	Control Air System - Flow Diagram
10.14-4 sht 3	Control Air System - Mechanical Control Diagram
10.14-4 sht 4	Control Air System Mechanical I & C - Flow Diagram
10.14-4 sht 5	Control Air System Mechanical I & C - Flow Diagram
10.14-4 sht 6	Control Air System - Mechanical Control Diagram
10.17-1a	Sampling and Water Quality Systems, Mechanical Control Diagram
10.17-1b	Sampling and Water Quality Systems, Mechanical Control Diagram
10.17-1c sht 1	Sampling and Water Quality Systems, Mechanical Control Diagram
10.17-1c sht 2	Sampling and Water Quality System - Mechanical Control Diagram
10.17-1d	Sampling and Water Quality System - Mechanical Control Diagram

AUXILIARY SYSTEMS
LIST OF ILLUSTRATIONS

<u>Figure</u>	<u>Title</u>
10.17-1e	Sampling and Water Quality System - Mechanical Control Diagram
10.17-1f	Sampling and Water Quality System - Mechanical Control Diagram
10.17-2	Air Ejector Offgas Sampler
10.18-1	Intraplant Communication
10.18-2	Plant to Offsite Communication
10.18-3	(Deleted)
10.18-4	Communications Equipment Availability Table
10.18-5a	(Deleted)
10.18-5b	(Deleted)
10.18-6	(Deleted)
10.21-1	Flow Diagram-PASS
10.21-2	Mechanical Control Diagram-PASS
10.21-3	Sampling and Water Quality System - Flow Diagram
10.21-4	Sampling and Water Quality System - Mechanical Control Diagram
10.21-5	Sampling and Water Quality System - Flow Diagram
10.21-6	Sampling and Water Quality System - Control Diagram