

**PBAPS UFSAR**

SECTION 10.0 - AUXILIARY SYSTEMS

TABLE OF CONTENTS

<u>SECTION</u>	<u>TITLE</u>
10.1	<u>SUMMARY DESCRIPTION</u>
10.2	<u>NEW FUEL STORAGE</u>
10.2.1	Introduction
10.2.2	Description
10.3	<u>SPENT FUEL STORAGE</u>
10.3.1	Power Generation Objective
10.3.2	Power Generation Design Basis
10.3.3	Safety Design Basis
10.3.4	Description
10.3.4.1	High Density Spent Fuel Storage Racks
10.3.4.1.1	Cell Assembly
10.3.4.1.1.1	Cell Enclosure
10.3.4.1.1.2	Neutron Absorbing Material
10.3.4.1.1.3	Wrapper Plate
10.3.4.1.1.4	Neutron Absorbing Inserts
10.3.4.1.1.4.1	Seismic and Structural Integrity
10.3.4.1.1.4.2	Fuel Handling Accidents
10.3.4.1.1.4.3	Criticality Analysis
10.3.4.1.1.4.4	Abnormal or Accident Conditions
10.3.4.1.1.4.5	Boraflex Credit for the Interim Period
10.3.4.1.2	Base Plate
10.3.4.1.3	Base Support Assembly
10.3.4.2	Spent Fuel Pool
10.3.4.3	Fuel Pool Level Alarms
10.3.5	Safety Evaluation
10.3.6	Inspection and Testing
10.3.6.1	Boraflex Inspection and Testing
10.3.6.2	Neutron Absorbing Inserts Surveillance Program
10.3.6.2.1	Fast Start Coupon Surveillance Program
10.3.6.2.2	Long-Term Coupon Surveillance Program
10.3.6.2.3	Full rack Insert Surveillance Inspections
10.4	<u>TOOLS AND SERVICING EQUIPMENT</u>
10.4.1	Introduction
10.4.2	Fuel Servicing Equipment
10.4.3	Servicing Aids

**PBAPS UFSAR**

TABLE OF CONTENTS (cont'd)

<u>SECTION</u>	<u>TITLE</u>
10.4.4	Reactor Vessel Servicing Equipment
10.4.5	In-Vessel Servicing Equipment
10.4.5.1	Reactor Cavity Work Platform
10.4.6	Refueling Equipment
10.4.7	Storage Equipment
10.4.8	Under-Reactor-Vessel Servicing Equipment
10.4.9	Equipment Storage Pit
10.4.10	Reactor Building Crane
10.4.11	Heavy Loads Compliance
10.4.11.1	NUREG-0612 Phase I Requirements
10.4.11.2	NUREG-0612 Phase II Requirements
10.4.11.3	Safety Evaluation
10.5	<u>FUEL POOL COOLING AND CLEANUP SYSTEM</u>
10.5.1	Power Generation Objective
10.5.2	Power Generation Design Basis
10.5.3	Description
10.5.4	Inspection and Testing
10.6	<u>SERVICE WATER SYSTEM</u>
10.6.1	Power Generation Objective
10.6.2	Power Generation Design Basis
10.6.3	Description
10.6.4	Inspection and Testing
10.7	<u>HIGH-PRESSURE SERVICE WATER SYSTEM</u>
10.7.1	Safety Objective
10.7.2	Safety Design Basis
10.7.3	Power Generation Objective
10.7.4	Power Generation Design Basis
10.7.5	Description
10.7.6	Safety Evaluation
10.7.7	Inspection and Testing
10.8	<u>REACTOR BUILDING COOLING WATER SYSTEM</u>
10.8.1	Power Generation Objective
10.8.2	Power Generation Design Basis
10.8.3	Description
10.8.4	Inspection and Testing
10.9	<u>EMERGENCY SERVICE WATER SYSTEM</u>
10.9.1	Safety Objective
10.9.2	Safety Design Basis
10.9.3	Description

**PBAPS UFSAR**

TABLE OF CONTENTS (cont'd)

<u>SECTION</u>	<u>TITLE</u>
10.9.4	Safety Evaluation
10.9.5	Inspection and Testing
10.10	<u>TURBINE BUILDING COOLING WATER SYSTEM</u>
10.10.1	Power Generation Objective
10.10.2	Power Generation Design Basis
10.10.3	Description
10.10.4	Inspection and Testing
10.11	<u>CHILLED WATER SYSTEM</u>
10.11.1	Power Generation Objective
10.11.2	Power Generation Design Basis
10.11.3	Description
10.11.4	Inspection and Testing
10.12	<u>FIRE PROTECTION PROGRAM</u>
10.13	<u>MAIN CONTROL ROOM AIR CONDITIONING</u>
10.13.1	Power Generation Objective
10.13.2	Power Generation Design Basis
10.13.3	Safety Design Basis
10.13.4	Description
10.13.4.1	Control Room Habitability
10.13.5	Safety Evaluation
10.13.6	Inspection and Testing
10.14	<u>EMERGENCY VENTILATING SYSTEMS</u>
10.14.1	Safety Objective
10.14.2	Safety Design Basis
10.14.3	Description
10.14.3.1	Emergency Switchgear and Battery Rooms
10.14.3.2	Standby Diesel Generator Rooms
10.14.3.3	Service Water Pump Rooms
10.14.4	Safety Evaluation
10.14.5	Inspection and Testing
10.15	<u>PLANT HEATING, VENTILATING, AND AIR CONDITIONING SYSTEMS</u>
10.15.1	Power Generation Objective
10.15.2	Power Generation Design Basis
10.15.3	Description
10.15.3.1	General
10.15.3.2	Turbine Building
10.15.3.3	Radwaste Building
10.15.3.4	Miscellaneous Rooms and Buildings

**PBAPS UFSAR**

TABLE OF CONTENTS (cont'd)

<u>SECTION</u>	<u>TITLE</u>
10.15.4	Inspection and Testing
10.16	<u>MAKEUP WATER TREATMENT SYSTEM</u>
10.16.1	Power Generation Objective
10.16.2	Power Generation Design Basis
10.16.3	Description
10.16.4	Inspection and Testing
10.17	<u>INSTRUMENT AIR, SERVICE AIR, AND INSTRUMENT NITROGEN SYSTEMS</u>
10.17.1	Safety Objective
10.17.2	Safety Design Basis
10.17.3	Power Generation Objective
10.17.4	Power Generation Design Basis
10.17.5	Description
10.17.6	Safety Evaluation
10.17.7	Inspection and Testing
10.18	<u>DOMESTIC AND SANITARY WATER SYSTEM</u>
10.18.1	Power Generation Objective
10.18.2	Power Generation Design Basis
10.18.3	Description
10.18.4	Inspection and Testing
10.19	<u>PLANT EQUIPMENT AND FLOOR DRAINAGE SYSTEM</u>
10.19.1	Power Generation Objective
10.19.2	Power Generation Design Basis
10.19.3	Description
10.19.3.1	Radioactive Equipment Drainage System
10.19.3.2	Floor Drainage System
10.19.3.3	Non-Radioactive Drainage System
10.19.3.4	Miscellaneous Drainage System
10.19.3.5	Torus Dewatering Facilities
10.19.4	Inspection and Testing
10.20	<u>PROCESS SAMPLING SYSTEM</u>
10.20.1	Power Generation Objective
10.20.2	Power Generation Design Basis
10.20.3	Description
10.20.4	Inspection and Testing
10.21	<u>COMMUNICATIONS SYSTEMS</u>
10.21.1	Power Generation Objective
10.21.2	Power Generation Design Basis
10.21.3	Description
10.21.4	Inspection and Testing

**PBAPS UFSAR**

TABLE OF CONTENTS (cont'd)

<u>SECTION</u>	<u>TITLE</u>
10.22	<u>STATION LIGHTING SYSTEM</u>
10.22.1	Power Generation Objective
10.22.2	Power Generation Design Basis
10.22.3	Description
10.22.4	Inspection and Testing
10.23	<u>PLANT AUXILIARY BOILERS</u>
10.23.1	Power Generation Objective
10.23.2	Power Generation Design Basis
10.23.3	Description
10.23.4	Inspection and Testing
10.24	<u>EMERGENCY HEAT SINK</u>
10.24.1	Power Generation Objective
10.24.2	Power Generation Design Basis
10.24.3	Description
10.24.4	Inspection and Testing

**PBAPS UFSAR**

SECTION 10.0 - AUXILIARY SYSTEMS

LIST OF TABLES

<u>TABLE</u>	<u>TITLE</u>
10.3.1	Available Makeup Water Sources
10.3.2	Rack Module Data (per unit)
10.3.6.1	Long-Term Surveillance Coupons
10.3.6.2	Long-Term Surveillance General Coupon Characterization
10.3.6.3	Frequency for Coupon Inspection
10.5.1	Fuel Pool Cooling and Cleanup System
10.5.2	Summary of Cooling System Analysis Results
10.6.1	Service Water System Data
10.7.1	High-Pressure Service Water System Equipment Data
10.8.1	Reactor Building Cooling Water System Equipment Data
10.9.1	Emergency Service Water System Equipment Data
10.10.1	Turbine Building Cooling Water System Equipment Data
10.20.1	Process Sampling System
10.24.1	Emergency Heat Sink Equipment Data

**PBAPS UFSAR**

SECTION 10.0 - AUXILIARY SYSTEMS

LIST OF FIGURES

<u>FIGURE</u>	<u>TITLE</u>
10.3.1	Rack Assembly
10.3.2	Spent Fuel Storage Cell Nominal Dimensions
10.3.3	Consolidated Fuel Canister Arrangement
10.3.4	Spent Fuel Pool Storage Rack Arrangement (Unit 2)
10.3.5	Spent Fuel Pool Storage Rack Arrangement (Unit 3)
10.3.6	Fuel Rack Plan View
10.3.7	Fuel Storage Rack Assembly Details
10.4.1	Plant Refueling Outage Diagram
10.4.2	Thermal Sleeve
10.4.3	Thermal Sleeve Installation Tool
10.5.1	Deleted
10.5.2	Deleted
10.6.1	Deleted
10.7.1	Deleted
10.8.1	Deleted
10.10.1	Deleted
10.11.1	Deleted
10.12.1a	Deleted
10.12.1b	Deleted
10.13.1	Deleted
10.13.2	Deleted

**PBAPS UFSAR**

LIST OF FIGURES (cont'd)

<u>FIGURE</u>	<u>TITLE</u>
10.14.1	Deleted
10.14.2	Deleted
10.15.1	Deleted
10.15.2	Deleted
10.16.1	Deleted
10.16.2	Deleted
10.17.1	Deleted
10.17.1	Deleted
10.23.1	Deleted
10.24.1	Deleted
10.24.2	Deleted
10.24.3	Deleted
10.24.4	Emergency Heat Sink Facility