

CHAPTER 10
STEAM AND POWER CONVERSION SYSTEM

TABLE OF CONTENTS

	<u>PAGE</u>
10.0 <u>STEAM AND POWER CONVERSION SYSTEM</u>	10.1-1
10.1 <u>MAIN STEAM SYSTEM</u>	10.1-1
10.1.1 DESIGN BASIS	10.1-1
10.1.2 SYSTEM DESCRIPTION	10.1-1
10.1.2.1 <u>Main Steam Safety Valves</u>	10.1-1
10.1.2.2 <u>Atmospheric Steam Dump and Bypass System</u>	10.1-2
10.1.2.3 <u>Main Steam Line Isolation</u>	10.1-3
10.1.2.4 <u>Flow Restrictors</u>	10.1-5
10.1.3 DESIGN EVALUATION	10.1-6
10.1.4 TESTS AND INSPECTIONS	10.1-6
10.1.5 SECONDARY SYSTEM-SPECIFIC ACTIVITY	10.1-6
10.2 <u>CONDENSATE AND FEEDWATER SYSTEM</u>	10.2-1
10.2.1 DESIGN BASIS	10.2-1
10.2.2 SYSTEM DESCRIPTION	10.2-1
10.2.2.1 <u>Feedwater Pumps</u>	10.2-1
10.2.2.2 <u>Automatic Control in Conjunction With Feedwater Regulating Valves</u>	10.2-2
10.2.2.3 <u>Main Feedwater Pump Turbine Speed Control</u>	10.2-2
10.2.2.4 <u>Radioactivity Monitoring</u>	10.2-2
10.2.3 DESIGN EVALUATION	10.2-3
10.2.4 TESTS AND INSPECTIONS	10.2-3
10.2.4.1 <u>Tank Reliability</u>	10.2-3
10.3 <u>AUXILIARY FEEDWATER SYSTEM</u>	10.3-1
10.3.1 DESIGN BASIS	10.3-1
10.3.2 SYSTEM DESCRIPTION	10.3-1
10.3.3 DESIGN EVALUATION	10.3-2
10.3.4 TESTS AND INSPECTIONS	10.3-3
10.4 <u>AUXILIARY BOILER STEAM SYSTEM</u>	10.4-1
10.4.1 DESIGN BASIS	10.4-1
10.4.2 SYSTEM DESCRIPTION	10.4-1
10.5 <u>TURBINE-GENERATOR AND CONDENSER SYSTEM</u>	10.5-1
10.5.1 DESIGN BASIS	10.5-1
10.5.2 SYSTEM DESCRIPTION	10.5-1
10.5.2.1 <u>Turbine-Generator</u>	10.5-1
10.5.2.2 <u>Condenser</u>	10.5-1
APPENDIX 10A HIGH ENERGY PIPE RUPTURE OUTSIDE CONTAINMENT	10A.0-1

CHAPTER 10
STEAM AND POWER CONVERSION SYSTEM

LIST OF TABLES

<u>TITLE</u>		<u>PAGE</u>
10-1	DESIGN DATA FOR STEAM AND POWER CONVERSION SYSTEM COMPONENTS	10.1-7

CHAPTER 10
STEAM AND POWER CONVERSION SYSTEM

LIST OF FIGURES

FIGURE

10-1	MAIN AND REHEAT STEAM - UNIT 1
10-2	MAIN STEAM ISOLATION VALVE - FLITE-FLOW BI-DIRECTIONAL BALANCED DISK
10-2A	LIST OF MATERIAL FOR VALVE ONLY
10-2B	MAIN STEAM ISOLATION VALVE LIST OF MATERIAL FOR VALVE ONLY
10-3	MAIN STEAM ISOLATION VALVE HYDRAULIC ACTUATION SYSTEM
10-4	CONDENSATE AND FEEDWATER - UNIT 1
10-5	EXTRACTION STEAM - UNIT 1
10-6	AUXILIARY BOILERS
10-7	CONDENSER AIR REMOVAL - UNIT 1
10-9	MAIN AND REHEAT STEAM - UNIT 2
10-10	EXTRACTION STEAM - UNIT 2
10-11	CONDENSATE AND FEEDWATER - UNIT 2
10-12	CONDENSER AIR REMOVAL AND PRIMING SYSTEM
10-13	AUXILIARY FEEDWATER - UNIT 2
10-14	AUXILIARY FEEDWATER - UNIT 1

CHAPTER 10
STEAM AND POWER CONVERSION SYSTEM

LIST OF ACRONYMS

AFW	Auxiliary Feedwater
ANSI	American National Standards Institute
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
B&PV	Boiler and Pressure Vessel
CST	Condensate Storage Tank
ESFAS	Engineered Safety Feature Actuation System
FCR	Facility Change Request
MSIV	Main Steam Isolation Valve
MSS	Main Steam System
MSSV	Main Steam Safety Valve
NEMA	National Electrical Manufacturers Association
NPSH	Net Positive Suction Head
RCS	Reactor Coolant System
SGFP	Steam Generator Feed Pump
TEMA	Tubular Exchanger Manufacturers Association