

CHAPTER 2—SYSTEM BASED DESIGN DESCRIPTIONS AND ITAAC LIST OF TABLES

Table 2.1.1-1—Seperation For Internal Hazards.....	2.1-6
Table 2.1.1-2—Postaccident Radiation Barriers	2.1-16
Table 2.1.1-3—Spreading Area Water Ingression Barrier	2.1-20
Table 2.1.1-4—RCB Rooms With Pipe Whip Restraints	2.1-20
Table 2.1.1-5—RBA Penetrations that Contain High Energy Pipelines.....	2.1-21
Table 2.1.1-6—SBs Flooding Pits and Relief Panels	2.1-22
Table 2.1.1-7—Nuclear Island Inspections, Tests, Analyses, and Acceptance Criteria	2.1-23
Table 2.1.2-1—EPGB Separation for Internal Hazards	2.1-43
Table 2.1.2-2—Emergency Power Generating Building Inspections, Tests, Analyses, and Acceptance Criteria	2.1-44
Table 2.1.3-1—Nuclear Auxiliary Building Inspections, Tests, Analyses, and Acceptance Criteria	2.1-49
Table 2.1.4-1—Radioactive Waste Building Inspections, Tests, Analyses, and Acceptance Criteria	2.1-52
Table 2.1.5-1—ESWB Separation For Internal Hazards	2.1-56
Table 2.1.5-2—Essential Service Water Building Inspections, Tests, Analyses, and Acceptance Criteria.....	2.1-57
Table 2.2.1-1—RCS Equipment Mechanical Design.....	2.2-4
Table 2.2.1 2—Equipment and Valve Actuator Power Supplies and Controls	2.2-12
Table 2.2.1 3—Instrumentation Power Supplies, Classification, and Displays.....	2.2-18
Table 2.2.1-4—Minimum Flow (% of Initial Flow) During Four Pump Coastdown ...	2.2-25
Table 2.2.1 5—RCS Inspections, Tests, Analyses, and Acceptance Criteria.....	2.2-26
Table 2.2.2-1—IRWSTS Equipment Mechanical Design	2.2-41
Table 2.2.2-2—IRWSTS Equipment I&C and Electrical Design	2.2-44
Table 2.2.2-3—IRWSTS Inspections, Tests, Analyses, and Acceptance Criteria ...	2.2-45
Table 2.2.3-1—SIS/RHRS Equipment Mechanical Design	2.2-56
Table 2.2.3-2—SIS/RHRS Equipment I&C and Electrical Design	2.2-63

Table 2.2.3-3—SIS/RHRS Inspections, Tests, Analyses, and Acceptance Criteria	2.2-69
Table 2.2.4-1 - EFWS Equipment Mechanical Design	2.2-86
Table 2.2.4-2 - EFWS Equipment I&C and Electrical Design	2.2-88
Table 2.2.4-3 - EFWS Inspections, Tests, Analyses, and Acceptance Criteria	2.2-91
Table 2.2.5-1—FPCPS Equipment Mechanical Design	2.2-102
Table 2.2.5-2—FPCPS Equipment I&C and Electrical Design	2.2-104
Table 2.2.5-3—FPCPS Inspections, Tests, Analyses, and Acceptance Criteria	2.2-106
Table 2.2.6-1—CVCS Equipment Mechanical Design	2.2-117
Table 2.2.6-2 - CVCS Equipment I&C and Electrical Design.....	2.2-120
Table 2.2.6-3—CVCS Inspections, Tests, Analyses, and Acceptance Criteria	2.2-123
Table 2.2.7-1 - EBS Equipment Mechanical Design	2.2-134
Table 2.2.7-2 - EBS Equipment I&C and Electrical Design	2.2-135
Table 2.2.7-3 - EBS Inspections, Tests, Analyses, and Acceptance Criteria	2.2-137
Table 2.2.8-1—FHS Equipment Mechanical Design	2.2-146
Table 2.2.8-2—FHS Inspections, Tests, Analyses, and Acceptance Criteria	2.2-147
Table 2.3.1-1—CGCS Equipment Design	2.3-2
Table 2.3.1-2—CGCS Inspections, Tests, Analyses, and Acceptance Criteria.....	2.3-3
Table 2.3.2-1—CMSS Inspections, Tests, Analyses, and Acceptance Criteria.....	2.3-5
Table 2.3.3-1—SAHRS Equipment Mechanical Design	2.3-8
Table 2.3.3-2—SAHRS Equipment I&C and Electrical Design.....	2.3-10
Table 2.3.3-3—SAHRS Inspections, Tests, Analyses, and Acceptance Criteria.....	2.3-11
Table 2.4.1-1—Protection System Equipment	2.4-3
Table 2.4.1-2—Protection System Input Signals	2.4-4
Table 2.4.1-3—Protection System Automatic Reactor Trips	2.4-7
Table 2.4.1-4—Protection System Automatically Actuated Engineered Safety Features.....	2.4-8
Table 2.4.1-5—Protection System Manually Actuated Functions.....	2.4-10
Table 2.4.1-6—Protection System Operating Bypasses	2.4-11
Table 2.4.1-7—Protection System Permissives	2.4-13
Table 2.4.1-8—Protection System Interlocks	2.4-14
Table 2.4.1-9—Protection System ITAAC	2.4-15
Table 2.4.2-1—Safety Information and Control System Equipment	2.4-21

Table 2.4.2-2—Safety Information and Control System ITAAC.....	2.4-22
Table 2.4.3-1—Severe Accident I&C Equipment	2.4-26
Table 2.4.3-2—Severe Accident I&C ITAAC	2.4-27
Table 2.4.4-1—Safety Automation System Equipment	2.4-30
Table 2.4.4-2—Safety Automation System Input Signals.....	2.4-31
Table 2.4.4-3—Safety Automation System Output Signals	2.4-32
Table 2.4.4-4—Safety Automation System Interlocks	2.4-33
Table 2.4.4-5—Safety Automation System ITAAC.....	2.4-34
Table 2.4.5-1—Priority and Actuator Control System Equipment.....	2.4-39
Table 2.4.5-2—Priority and Actuator Control System ITAAC	2.4-40
Table 2.4.6-1—Plant Fire Alarm System Displays and Alarms – Main Control Room and Remote Shutdown Station.....	2.4-42
Table 2.4.6-2—Plant Fire Alarm System ITAAC	2.4-43
Table 2.4.7-1—Seismic Monitoring System ITAAC	2.4-45
Table 2.4.9-1—Process Automation System Equipment.....	2.4-49
Table 2.4.9-2—Functions Automatically Actuated by the DAS.....	2.4-50
Table 2.4.9-3—Process Automation System ITAAC	2.4-51
Table 2.4.10-1—Process Information and Control System ITAAC.....	2.4-54
Table 2.4.11-1—Boron Concentration Measurement System Equipment.....	2.4-56
Table 2.4.11-2—Boron Concentration Measurement System Output Signals.....	2.4-57
Table 2.4.11-3—Boron Concentration Measurement System ITAAC	2.4-58
Table 2.4.13-1—Control Rod Drive Control System Equipment.....	2.4-61
Table 2.4.13-2—Control Rod Drive Control System Input Signals	2.4-62
Table 2.4.13-3—Control Rod Drive Control System ITAAC	2.4-63
Table 2.4.14-1—Hydrogen Monitoring System Equipment	2.4-66
Table 2.4.14-2—Hydrogen Monitoring System ITAAC	2.4-67
Table 2.4.15-1—Reactor Control Surveillance and Limitation System ITAAC	2.4-69
Table 2.4.16-1—Reactor Pressure Vessel Level Measurement System Equipment.....	2.4-71
Table 2.4.16-2—Reactor Pressure Vessel Level Measurement System ITAAC	2.4-72
Table 2.4.17-1—Excore Instrumentation System Equipment.....	2.4-74
Table 2.4.17-2—Excore Instrumentation System Output Signals	2.4-76

Table 2.4.17-3—Excore Instrumentation System ITAAC	2.4-77
Table 2.4.19-1—Incore Instrumentation Equipment.....	2.4-80
Table 2.4.19-2—Incore Instrumentation System Output Signals.....	2.4-84
Table 2.4.19-3—Incore Instrumentation System ITAAC.....	2.4-85
Table 2.4.21-1—Communication Equipment Locations	2.4-88
Table 2.4.21-2—Communication System ITAAC	2.4-89
Table 2.5.1-1—Class 1 E Emergency Power Supply Electrical Equipment Location	2.5-4
Table 2.5.1-2—Class 1 E Emergency Power Supply System Electrical Equipment Design	2.5-7
Table 2.5.1-3—Class 1 E Emergency Power Supply System Inspections, Tests, Analyses, and Acceptance Criteria	2.5-13
Table 2.5.2-1—Class 1E Uninterruptible Power Supply System Electrical Equipment Location	2.5-22
Table 2.5.2-2—Class 1E Uninterruptible Power Supply Electrical Equipment Design.....	2.5-24
Table 2.5.2-3—Class 1E Uninterruptible Power Supply Inspections, Tests, Analyses, and Acceptance Criteria	2.5-27
Table 2.5.3-1—Station Blackout Alternate AC Source Electrical Equipment Design.....	2.5-33
Table 2.5.3-2—Station Blackout Alternate AC Source Inspections, Tests, Analyses, and Acceptance Criteria	2.5-34
Table 2.5.4-1—Emergency Diesel Generator Equipment Mechanical Design	2.5-37
Table 2.5.4-2—Emergency Diesel Generator Electrical Equipment Design.....	2.5-39
Table 2.5.4-3—Emergency Diesel Generator Inspections, Tests, Analyses, and Acceptance Criteria	2.5-41
Table 2.5.5-1—Preferred (Offsite) Power Supply System Inspections, Tests, Analyses, and Acceptance Criteria	2.5-48
Table 2.5.6-1—Power Transmission System Inspections, Tests, Analyses, and Acceptance Criteria.....	2.5-50
Table 2.5.7-1— Non-Class 1E Uninterruptible Power Supply System Electrical Equipment Location	2.5-53
Table 2.5.7-2—Non-Class 1E Uninterruptible Power Supply Electrical Equipment Design	2.5-54
Table 2.5.7-3—Non-Class 1E Uninterruptible Power Supply Inspections, Tests, Analyses, and Acceptance Criteria	2.5-55

Table 2.5.8-1—Lightning Protection and Grounding System Inspections, Tests, Analyses, and Acceptance Criteria	2.5-59
Table 2.5.9-1 Lighting System Inspections, Tests, Analyses and Acceptance Criteria	2.5-61
Table 2.5.10-1—Normal Power Supply System Electrical Equipment Design	2.5-64
Table 2.5.10-2—Non-Class 1E Normal Power Supply Inspections, Tests, Analyses, and Acceptance Criteria	2.5-65
Table 2.5.11-1—12-Hour Uninterruptible Power Supply System Inspections, Tests, Analyses, and Acceptance Criteria	2.5-72
Table 2.6.1-1—Main Control Room Air Conditioning System Equipment Mechanical Design	2.6-3
Table 2.6.1-2—Main Control Room Air Conditioning System Equipment I&C and Electrical Design	2.6-12
Table 2.6.1-3—Main Control Room Air Conditioning System ITAAC	2.6-19
Table 2.6.3-1—Annulus Ventilation System Equipment Mechanical Design.....	2.6-29
Table 2.6.3-2—Annulus Ventilation System Equipment I&C and Electrical Design.....	2.6-31
Table 2.6.3-3—Annulus Ventilation System ITAAC	2.6-34
Table 2.6.4-1—Fuel Building Ventilation System Equipment Mechanical Design.....	2.6-42
Table 2.6.4-2—Fuel Building Ventilation System Equipment I&C and Electrical Design.....	2.6-45
Table 2.6.4-3—Fuel Building Ventilation System ITAAC.....	2.6-49
Table 2.6.6-1—Safeguard Building Controlled-Area Ventilation System Equipment Mechanical Design	2.6-58
Table 2.6.6-2—Safeguard Building Controlled-Area Ventilation System Equipment I&C and Electrical Design	2.6-58
Table 2.6.6-3—Safeguard Building Controlled-Area Ventilation System ITAAC	2.6-63
Table 2.6.7-1—Electrical Division of Safeguard Building Ventilation System Equipment Mechanical Design	2.6-80
Table 2.6.7-2—Electrical Division of Safeguard Building Ventilation System Equipment I&C and Electrical Design	2.6-87
Table 2.6.7-3—Electrical Division of Safeguard Building Ventilation System ITAAC	2.6-96
Table 2.6.8-1—Containment Building Ventilation System Containment Isolation Valves Mechanical Design.....	2.6-105

Table 2.6.8-2—Containment Building Ventilation System Equipment Mechanical Design.....	2.6-106
Table 2.6.8-3—Containment Building Ventilation System Equipment I&C and Electrical Design	2.6-108
Table 2.6.8-4—Containment Building Ventilation System ITAAC	2.6-110
Table 2.6.9-1—Emergency Power Generating Building Ventilation System Equipment Mechanical Design	2.6-116
Table 2.6.9-2—Emergency Power Generating Building Ventilation System Equipment I&C and Electrical Design	2.6-123
Table 2.6.9-3—Emergency Power Generating Building Ventilation System ITAAC	2.6-126
Table 2.6.13-1—Essential Service Water Pump Building Ventilation System Equipment Mechanical Design	2.6-138
Table 2.6.13-2—Essential Service Water Pump Building Ventilation System Equipment I&C and Electrical Design	2.6-140
Table 2.6.13-3—Essential Service Water Pump Building Ventilation System ITAAC	2.6-141
Table 2.7.1-1—Component Cooling Water System Equipment Mechanical Design.....	2.7-4
Table 2.7.1-2—Component Cooling Water System Equipment I&C and Electrical Design.....	2.7-13
Table 2.7.1-3—Component Cooling Water System Inspections, Tests, Analyses, and Acceptance Criteria.....	2.7-22
Table 2.7.2-1—Safety Chilled Water System Equipment Mechanical Design.....	2.7-56
Table 2.7.2-2—Safety Chilled Water System Equipment I&C and Electrical Design.....	2.7-61
Table 2.7.2-3—Safety Chilled Water System Inspections, Tests, Analyses, and Acceptance Criteria	2.7-64
Table 2.7.5-1—Fire Water Distribution System Equipment Mechanical Design.....	2.7-78
Table 2.7.5-2—Fire Water Distribution System Equipment I&C and Electrical Design.....	2.7-79
Table 2.7.5-3—Fire Water Distribution System Inspections, Tests, Analyses, and Acceptance Criteria	2.7-80
Table 2.7.6-1—Gaseous Fire Extinguishing System Inspections, Tests, Analyses, and Acceptance Criteria.....	2.7-85
Table 2.7.11-1—Essential Service Water System Equipment Mechanical Design ..	2.7-94

Table 2.7.11-2—Essential Service Water System Equipment I&C and Electrical Design.....	2.7-103
Table 2.7.11-3—Essential Service Water System Inspections, Tests, Analyses, and Acceptance Criteria.....	2.7-110
Table 2.8.1-1—Turbine-Generator System Equipment Mechanical Design	2.8-3
Table 2.8.1-2—Turbine-Generator System Equipment I&C and Electrical Design..	2.8-4
Table 2.8.1-3—Turbine-Generator System Inspections, Tests, Analyses, and Acceptance Criteria	2.8-5
Table 2.8.2-1—MSS Equipment Mechanical Design	2.8-10
Table 2.8.2-2—MSS Equipment I&C and Electrical Design	2.8-12
Table 2.8.2-3—MSS Inspections, Tests, Analyses, and Acceptance Criteria	2.8-18
Table 2.8.6-1—MFWS Equipment Mechanical Design	2.8-30
Table 2.8.6-2—MFWS Equipment I&C and Electrical Design	2.8-32
Table 2.8.6-3—MFWS Inspections, Tests, Analyses, and Acceptance Criteria	2.8-34
Table 2.8.7-1—SGBS Equipment Mechanical Design	2.8-41
Table 2.8.7-2—SGBS Equipment I&C and Electrical Design	2.8-43
Table 2.8.7-3—SGBS Inspections, Tests, Analyses, and Acceptance Criteria	2.8-45
Table 2.9.4-1—Sampling Activity Monitoring System Equipment Mechanical Design.....	2.9-5
Table 2.9.4-2—Sampling Activity Monitoring System Equipment I&C and Electrical Design	2.9-5
Table 2.9.4-3—Sampling Activity Monitoring System Inspections, Tests, Analyses, and Acceptance Criteria	2.9-7
Table 2.10.1-1—Fuel Pool Cooling and Purification System Equipment Mechanical Design	2.10-2
Table 2.10.1-2—Cranes Inspections, Tests, Analyses, and Acceptance Criteria	2.10-3