

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
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
→(EC-14275, R306)		
9.1.2	SPENT FUEL STORAGE IN THE FUEL HANDLING AND CONTAINMENT BUILDINGS	9.1-4
←(EC-14275, R306)		
9.1.3	FUEL POOL SYSTEM (SPENT FUEL POOL COOLING AND CLEANUP SYSTEM)	9.1-8
9.1.4	FUEL HANDLING SYSTEM	9.1-15
→(EC-14275, R306)		
9.1.5	SPENT FUEL DRY CASK STORAGE	9.1-40
←(EC-14275, R306)		
9.2	<u>WATER SYSTEMS</u>	9.2-1
9.2.1	STATION SERVICE WATER SYSTEM	9.2-1
9.2.2	COOLING SYSTEM FOR REACTOR AUXILIARIES	9.2-1
9.2.3	DEMINERALIZED WATER MAKEUP SYSTEM	9.2-6
→(DRN 00-691, R11-A)		
9.2.4	POTABLE AND SANITARY WATER SYSTEM	9.2-11
9.2.5	ULTIMATE HEAT SINK	9.2-12
9.2.6	CONDENSATE STORAGE FACILITIES	9.2-18
←(DRN 00-691, R11-A)		
9.2.7	TURBINE CLOSED COOLING WATER SYSTEM	9.2-20
→(DRN 00-691, R11-A)		
9.2.8	PRIMARY WATER STORAGE FACILITIES	9.2-22
←(DRN 00-691, R11-A)		
9.2.9	ESSENTIAL SERVICES CHILLED WATER SYSTEM	9.2-24
9.3	<u>PROCESS AUXILIARIES</u>	9.3-1
9.3.1	COMPRESSED AIR SYSTEM	9.3-1
→(DRN 00-691, R11-A)		
9.3.2	PROCESS SAMPLING SYSTEM	9.3-3
←(DRN 00-691, R11-A)		
9.3.3	EQUIPMENT AND FLOOR DRAINAGE SYSTEMS	9.3-8
→(DRN 00-691, R11-A)		
9.3.4	CHEMICAL AND VOLUME CONTROL SYSTEM	9.3-15
9.3.5	STANDBY LIQUID CONTROL SYSTEM (BWRs)	9.3-38
←(DRN 00-691, R11-A)		

WSES-FSAR-UNIT-3

CHAPTER 9

TABLE OF CONTENTS (Cont'd)

<u>Section</u>	<u>Title</u>	<u>Page</u>
→(DRN 00-691, R11-A) 9.3.6	SHUTDOWN COOLING SYSTEM (RESIDUAL HEAT REMOVAL SYSTEM)	9.3-38
9.3.7	HYDROGEN SYSTEM	9.3-50
9.3.8	POST ACCIDENT SAMPLING SYSTEM	9.3-52
9.3.9	NITROGEN SYSTEM	9.3-56
9.3	REFERENCES	9.3-59
←(DRN 00-691, R11-A) 9.4	<u>AIR CONDITIONING, HEATING, COOLING AND VENTILATION SYSTEMS</u>	9.4-1
9.4.1	CONTROL ROOM AIR CONDITIONING SYSTEM	9.4-1
9.4.2 9.4-4	FUEL HANDLING BUILDING VENTILATION SYSTEM	
9.4.3	REACTOR AUXILIARY BUILDING VENTILATION SYSTEM	9.4-8
→(DRN 00-691, R11-A) 9.4.4	TURBINE BUILDING VENTILATION SYSTEM	9.4-24
9.4.5	REACTOR BUILDING VENTILATION SYSTEM	9.4-25
9.5	<u>OTHER AUXILIARY SYSTEMS</u>	9.5-1
←(DRN 00-691, R11-A) 9.5.1	FIRE PROTECTION SYSTEM	9.5-1
9.5.2	COMMUNICATION SYSTEMS	9.5-246
9.5.3	LIGHTING SYSTEMS	9.5-251
9.5.4	DIESEL GENERATOR FUEL OIL STORAGE AND TRANSFER SYSTEMS	9.5-252
9.5.5	DIESEL GENERATOR JACKET WATER COOLING SYSTEM	9.5-255
9.5.6	DIESEL ENGINE STARTING SYSTEM	9.5-258
9.5.7	DIESEL GENERATOR LUBRICATION SYSTEM	9.5-260
9.5.8	DIESEL GENERATOR COMBUSTION AIR INTAKE AND EXHAUST SYSTEM	9.5-263

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF TABLES

<u>Table</u>	<u>Title</u>
9.1-1	Fuel Pool System Process Flow Data
9.1-2	Refueling and Spent Fuel Pool Water Chemistry
9.1-3	Principal Components Design Data Summary
9.1-4	Failure Mode and Effects Analysis Fuel Pool System
9.1-5	Major Tools and Servicing Equipment Required for Refueling Functions
9.1-6	Reactor Building Crane Data
9.1-7	FHB Building Crane Data (Cask Crane)
→(DRN 99-0971) 9.1-8 ←(DRN 99-0971)	Fuel Assembly Parameters used in Criticality Analysis
9.2-1	Design Data for the Component Cooling Water System and Auxiliary Component Cooling Water System Components
9.2-2	CCWS and ACCWS Temperature and Flow Control Description
9.2-3	Heat Removal and Water Requirements for the CCWS
9.2-4	Failure Modes and Effects Analysis for the CCWS and ACCWS Post LOCA
9.2-5	CCWS and ACCWS Instrument Application
9.2-6	Design Data for PWTP Components
→(DRN 06-873, R15) 9.2-7 ←(DRN 06-873, R15)	DELETED
9.2-8	Principal Cooling Tower Components Dry Cooling Towers
→(DRN 00-691, R11-A) 9.2-9	Estimated Wet-Dry Cooling Tower Heat Dissipation for all Operations
9.2-10 ←(DRN 00-691, R11-A)	Water Requirements for Wet Cooling Towers Post LOCA Essential Loads
9.2-11	Cooling Tower Instrument Application
9.2-12	Design Data for Condensate Storage System
9.2-13	Design Data for Turbine Closed Cooling Water System Components
9.2-14	Turbine Plant Operating Flow Rates and Calculated Heat Loads

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>
9.2-15	Design Data for Primary Water Storage System
9.2-16	Safety Related and Nonsafety Related Air Handling Units
9.2-17	Essential Services Chilled Water System Failure Mode and Effects Analysis
→(DRN 00-691, R11-A) 9.3-1a	Safety Class Valves with Air Accumulators
←(DRN 00-691, R11-A) 9.3-1b	Safety Class Valves with Nitrogen Accumulators
9.3-2	Design Data for Compressed Air System Components
9.3-3	Primary Sample Points
9.3-4	Secondary Sample Points
9.3-5	Sub-system Construction Materials
9.3-6	Decontamination Areas
9.3-7	Reactor Coolant and Reactor Makeup Water Chemistry
9.3-8	CVCS Design Transients
→(DRN 00-691, R11-A) 9.3-9	Principal Component Design Data Summary
←(DRN 00-691, R11-A) 9.3-10	DELETED
9.3-11	Chemical and Volume Control System Process Parameters
9.3-12	Schedule of Waste Generation
9.3-13	Chemical and Volume Control System Process Flow Data
9.3-14	CVCS Component Diesel Loading
9.3-15	Chemical and Volume Control System (Boron Addition Portion) Failure Mode and Effects Analysis
9.3-16	Shutdown Cooling System (SDCS) Failure Mode and Effects Analysis
9.3-17	Shutdown Cooling Heat Exchanger Data
9.3-18	Shutdown Cooling System Valves Design Pressures and Temperatures

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>
9.3-19	DELETED
9.3-20	Required Valve Actuations Accomplished from the Main Control Room
9.3-21	Design and Materials Data for Bulk Gas Storage Tubes
→(DRN 00-703, R11-A)	
9.3-21A	Design and Materials Data for Essential Air Accumulators
←(DRN 00-703, R11-A)	
9.3-22	Shutdown Cooling System Relief Valve Parameters
9.4-1	Design Space Temperatures and Humidities for Normal Plant Operation
9.4-2	Design Data for Control Room Air Conditioning System Components
9.4-3	Control Room Air Conditioning System Failure Modes and Effects Analysis
9.4-4	Design Data for Fuel Handling Building Ventilation System
9.4-5	F.H.B. Ventilation System Failure Modes and Effects Analysis
9.4-6	Design Data for Reactor Auxiliary Building Normal Ventilation System
9.4-7	Design Data for Personnel Decontamination Area Ventilation System
9.4-8	Design Data for Emergency Diesel Generator Ventilation System
9.4-9	Design Data for RAB H&V Room Ventilation System
9.4-10	Design Data for RAB Cable Vault and Switchgear Areas Ventilation System
9.4-11	RAB Cable Vault and Switchgear Areas Ventilation System Failure Modes and Effects Analysis
9.4-12	Design Data for RAB Hot Machine Shop and Decontamination Area Ventilation System
9.4-13	Design Data for RAB Air Conditioning System
9.4-14	Design Data for Controlled Ventilation Area Systems (CVAS) Fan Coolers
9.4-15	Design Data for Turbine Building Ventilation System

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF TABLES (Cont'd)

<u>Table</u>	<u>Title</u>
9.4-16	Design Data for Airborne Radioactivity Removal System
9.4-17	Design Data for Containment Atmosphere Purge System
9.4-18	Design Data for Reactor Cavity Cooling System
9.4-19	Design Data for Control Element Drive Mechanism (CEDM) Cooling System
9.4-20	Design Data for Annulus Negative Pressure System (ANPS)
9.4-21	Comparison of Normal Ventilation System Air Cleaning Unit with Regulatory Guide 1.140 (March 1978)
9.5-1	Design Data - Diesel Generator Fuel Oil Storage and Transfer System
9.5-2	Diesel Generator Fuel Oil Storage and Transfer Systems Failure Mode and Effects Analysis
9.5-3	Design Parameters for Diesel Generator Jacket Cooling Water System
9.5-4	Design Data - Diesel Engine Starting System Components
→(DRN 00-691, R11-A)	
9.5-5	Design Parameters for Diesel Generator Lube Oil System Components
←(DRN 00-691, R11-A)	
9.5-6	Summary of Onsite Communication System Capabilities and Noise Consideration During Transients and/or Accidents
9.5.1-1	Tabulation of Doors which are Located Within Fire Walls
9.5.1-2	Fire Protection System Failure Mode and Effects Analysis
9.5.1-3	Fire Areas/Zones
→(DRN 00-691, R11-A)	
9.5.1-4	Minimum Equipment Requirement for Safe Plant Shutdown Following a Cable Vault and Control Room Fire
←(DRN 00-691, R11-A)	

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF FIGURES

<u>Figure</u>	<u>Title</u>
→(DRN 00-691, R11-A) 9.1-1	New Fuel Storage Racks
←(DRN 00-691, R11-A) 9.1-2	Spent Fuel Pit Liner (Sheet 1 of 2)
9.1-2	Spent Fuel Pit Liner (Sheet 2 of 2)
→(DRN 00-691, R11-A) 9.1-3	Plan Arrangement of Spent Fuel Pool Storage Racks (Sheet 1 of 3)
←(DRN 00-691, R11-A) 9.1-3	Rack Assembly - Type 64-1 thru 64-12 (Sheet 2 of 3)
9.1-3	Rack Assembly - Type 80-1 thru 80-4 (Sheet 3 of 3)
→(DRN 01-419) 9.1-4	Flow Diagram Fuel Pool System
←(DRN 01-419) 9.1-5	Fuel Handling Equipment Arrangement (Typical)
9.1-6	Dual-Masted Refueling Machine
9.1-7	Fuel Handling Tools
9.1-8	Reactor Vessel Head Lift Rig
9.1-9	Core Support Barrel Lift Rig
9.1-10	Upper Guide Structure Lift Rig
9.1-11	Spent fuel Handling Machine
9.1-12	New Fuel Elevator
9.1-13	Underwater TV System
9.1-14	Deleted
9.1-15	Deleted
9.1-16	Hydraulic Power Unit
9.1-17	Refueling Pool Seals
9.1-18	Fuel Handling Building Crane Clearance Diagram (Plan)
9.1-19	Fuel Handling Building Cane Clearance Diagram (Section)
9.1-20	Reactor Building - Reactor Bridge Crane Clearance
9.1-21	Spent Fuel Pool Cooling System - Thermal Performance for Maximum Heat Load
9.1.22	Spent Fuel Pool Cooling System - Thermal Performance for Normal Head Load

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF FIGURES (Cont'd)

<u>Figure</u>	<u>Title</u>
9.2-1	Flow Diagram - Component Closed Cooling Water System (Sheet 1 of 6)
9.2-1	Flow Diagram - Component Closed Cooling Water System (Sheet 2 of 6)
9.2-1	Flow Diagram - Component Closed Cooling Water System (Sheet 3 of 6)
→(DRN 01-419) 9.2-1	Flow Diagram - Component Closed Cooling Water System (Sheet 4 of 6)
←(DRN 01-419) 9.2-1	Flow Diagram - Component Closed Cooling Water System (Sheet 5 of 6)
→(DRN 01-419) 9.2-1	Flow Diagram - Component Closed Cooling Water System (Sheet 6 of 6)
←(DRN 01-419) 9.2-2	Flow Diagram - Primary Water, Condensate Storage and Makeup Demineralizer (Sheet 1 of 3)
9.2-2	Flow Diagram - Primary Water, Condensate Storage and Makeup Demineralizer (Sheet 2 of 3)
9.2-2	Flow Diagram - Primary Water, Condensate Storage and Makeup Demineralizer (Sheet 3 of 3)
9.2-3	DELETED (3 SHEETS)
9.2-4	Heat Load Dissipation of Ultimate Heat Sink After LOCA
9.2-4a	Wet Cooling Tower Integrated Heat Load Curve After LOCA
9.2-5	Heat Removal Capacity of Dry Cooling Tower vs. Dry Bulb Temperature
9.2-5a	Ultimate Heat Sink Design Basis Meteorological Conditions
9.2-6	Simplified Flow Diagram of Wet and Dry Cooling Towers
9.2-7	Turbine Building Closed Cooling Water System (Sheet 1 of 2)
9.2-7	Turbine Building Closed Cooling Water System (Sheet 2 of 2)
9.2-8	Essential Services Chilled Water System (Sheet 1 of 3)
9.2-8	Essential Services Chilled Water System (Sheet 2 of 3)
→(DRN 01-419) 9.2-8	Essential Services Chilled Water System (Sheet 3 of 3)
←(DRN 01-419) 9.2-9	Flow Diagram - Potable Water System

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF FIGURES (Cont'd)

<u>Figure</u>	<u>Title</u>
9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 1 of 9)
9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 2 of 9)
→(DRN 01-419) 9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 3 of 9)
9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 4 of 9)
←(DRN 01-419) 9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 5 of 9)
9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 6 of 9)
9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 7 of 9)
9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 8 of 9)
9.3-1	Flow Diagram - Service and Instrument Air Systems (Sheet 9 of 9)
9.3-2	Flow Diagram Sampling System (Sheet 1 of 6)
9.3-2	Flow Diagram Sampling System (Sheet 2 of 6)
→(DRN 01-419) 9.3-2	Flow Diagram Sampling System (Sheet 3 of 6)
←(DRN 01-419) →(DRN 00-691, R11-A) 9.3-2	Flow Diagram Post Accident Sampling System (Sheet 4 of 6)
←(DRN 00-691, R11-A) 9.3-2	Flow Diagram Waste Gas Analyzer System (Sheet 5 of 6)
9.3-2	Flow Diagram Sampling System (Sheet 6 of 6)
→(DRN 01-419) 9.3-3	Flow Diagram - Sump Pump Systems Turbine Building and Yard (Sheet 1 of 3)
←(DRN 01-419) 9.3-3	Flow Diagram - Sump Pump Systems Reactor Auxiliary Building (Sheet 2 of 3)
9.3-3	Flow Diagram - Sump Pump Systems Reactor Building, Fuel Handling Building, Cooling Tower Area and Intake Structure (Sheet 3 of 3)
9.3-4	Reactor, Turbine and Fuel Handling Building Drainage Systems
9.3-5	Reactor Auxiliary Building Drainage Systems
→(DRN 01-419) 9.3-6	Flow Diagram Chemical and Volume Control System (Sheet 1 of 3)
←(DRN 01-419) 9.3-6	Flow Diagram Chemical and Volume Control System (Sheet 2 of 3)
9.3-6	Flow Diagram Chemical and Volume Control System (Sheet 3 of 3)
9.3-7	Normal Cooldown All System Components Operating

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF FIGURES (Cont'd)

<u>Figure</u>	<u>Title</u>
9.3-8	Limited Cooldown One LPSI Pump and One SDHX Operating
9.3-8A	Cooldown Without A-C Coolant Temperatures In Loop B (Atmospheric Dump Valve And Main Steam Cross-Connect Unavailable)
→(DRN 00-691, R11-A)	
9.3-8B	Cooldown Without A-C Coolant Temperatures In Loop A (Atmospheric Dump Valve Operable)
←(DRN 00-691, R11-A)	
9.3-9	Hydrogen Storage System
9.3-10	SDCS Relief Valves
9.3-11	Post Accident Sampling System
→(DRN 01-1335, R11-B)	
9.4-1	Flow Diagram - Control Room Air Conditioning System (Sheet 1 of 2)
9.4-1	Flow Diagram - Control Room Air Conditioning System (Sheet 2 of 2)
←(DRN 01-1335, R11-B)	
9.4-2	Fuel Handling Building Ventilation System
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 1 of 9)
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 2 of 9)
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 3 of 9)
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 4 of 9)
→(DRN 01-419)	
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 5 of 9)
←(DRN 01-419)	
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 6 of 9)
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 7 of 9)
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 8 of 9)
9.4-3	Reactor Auxiliary Building Ventilation Systems (Sheet 9 of 9)
9.4-4	RAB Cable Vault and Switchgear Areas Ventilation System
9.4-5	RAB Hot Machine Shop and Decontamination Area Ventilation System
→(DRN 01-419)	
9.4-6	Turbine Building Ventilation Systems
←(DRN 01-419)	
9.4-7	Reactor Building Ventilation Systems

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF FIGURES (Cont'd)

<u>Figure</u>	<u>Title</u>
9.5-1	Telephone Communication System Diagram (Sheet 1 of 4)
9.5-1	Telephone Communication System Diagram (Sheet 2 of 4)
→(DRN 01-419) 9.5-1	Telephone Communication System Diagram (Sheet 3 of 4)
←(DRN 01-419) 9.5-1	Telephone Communication System Diagram (Sheet 4 of 4)
9.5-2	Paging Communication System Diagram (Sheet 1 of 2)
9.5-2	Paging Communication System Diagram (Sheet 2 of 2)
9.5-3	Diesel Generator Fuel Oil Storage and Transfer System
9.5-3a	Emergency Diesel Miscellaneous Piping
9.5-4	Diesel Engine Jacket Water Cooling System Schematic
9.5-5	Diesel Engine Starting System Schematic
9.5-6	Diesel Generator Lubrication System
9.5-7	Diesel Generator Combustion Air Intakes and Exhausts
9.5-8	Emergency Communication System Diagram - (Magneto/Sound Powered System)
9.5.1-1	Flow Diagram - Fire, Makeup and Domestic Water (Sheet 1 of 3)
9.5.1-1	Flow Diagram - Fire, Makeup and Domestic Water (Sheet 2 of 3)
9.5.1-1	Flow Diagram - Fire, Makeup and Domestic Water (Sheet 3 fo 3)
→(DRN 01-419) 9.5.1-2	Fire Protection Cooling Towers - Plan
←(DRN 01-419)	
9.5.1-3	Fire Protection Reactor Auxiliary Building Plan EL -35.00'
9.5.1-4	Fire Protection Reactor Auxiliary Building Plan EL -4.00'
9.5.1-5	Fire Protection Reactor Auxiliary Building Plan EL +21.00'
9.5.1-6	Fire Protection Reactor Auxiliary Building Plan EL +46.00'
→(DRN 00-691, R11-A) 9.5.1-7	Fire Protection Reactor Auxiliary Building Section Sheet 1
←(DRN 00-691, R11-A)	

WSES-FSAR-UNIT-3

CHAPTER 9

AUXILIARY SYSTEMS

LIST OF FIGURES (Cont'd)

<u>Figure</u>	<u>Title</u>
9.5.1-8	Fire Protection Reactor Auxiliary Building Sections Sheet 2
9.5.1-9	Fire Protection Reactor Auxiliary Building Sections 3 Sheet 3
→(DRN 00-691, R11-A)	
9.5.1-10	Fire Protection Reactor Auxiliary Building Sections Sheet 4
←(DRN 00-691, R11-A)	
9.5.1-11	Fire Protection Fuel Handling Building - Plans
9.5.1-12	Fire Protection Fuel Handling Building - Sections
9.5.1-13	Fire Protection Reactor Building - Plan EL -35.00' EL -4.00'
→(DRN 01-419)	
9.5.1-14	Fire Protection Reactor Building - Plan EL +21.00'
←(DRN 01-419)	
9.5.1-15	Fire Protection Reactor Building - Plan EL +46.00'
9.5.1-16	Fire Protection Turbine Building Ground Floor Plan EL 15.00'
9.5.1-17	Fire Protection Turbine Building Mezz. Floor Plan EL +40.00'
9.5.1-18	Fire Protection Turbine Building Operating Floor Plan EL +67.00'
9.5.1-19	Fire Protection Turbine Building Sections "B-B" and "C-C"
9.5.1-20	Fire Protection Turbine Building Section "A-A"
9.5.1-21	Fire Protection Auxiliary Building Plan EL +35.00'

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

<u>Section</u>	<u>Cross References</u>
<u>Revision 12-B</u>	
Section 9.3.3.2.2.4	ER-W3-2002-0663-001/DRN 03-213
Section 9.2.9.3	ER-W3-2000-0563-000/DRN 02-1623
Table 9.3-13 Sh 4	ER-W3-2003-0132-000/DRN 03-275
Table 9.5.1-1 Sh 1	ER-W3-2002-0469-000/DRN 02-1351
Figure 9.5.1-16	
Figure 9.5.1-17	
Figure 9.5.1-20	
Figure 9.4-3 Sh 8	ER-W3-2001-1065-000/DRN 02-1534
<u>Revision 12-C</u>	
Section 9.5.1.2.2	ER-W3-2003-0220-000/DRN 03-578
Section 9.5.1.3.1	
Section 9.5.4.1	ER-W3-2003-0227-000/DRN 03-635
Section 9.5.4.2	
Section 9.5.5.3	
Section 9.5.6.2	
Section 9.5.6.3	
Section 9.5.7.2	
Section 9.5.7.3	
Table 9.5-1 Sht 1	
Table 9.5-1 Sht 3	
Table 9.5-2 Sht 1	
Table 9.5-2 Sht 2	
Table 9.5-3	
Table 9.5-4 Sht 1	
Table 9.5-4 Sht 2	
Table 9.5-5 Sht 2	
<u>Revision 13</u>	
Figure 9.5-1 Sht 2	ER-W3-2000-0147-001/DRN 02-147
Table 9.2-1 Sht 5	ER-W3-2000-1073-000/DRN 02-1197
Section 9.3.4.3.2	ER-W3-2000-0106-002/DRN 03-760
Section 9.5.1.2.2	ER-W3-2001-1024-009/DRN 03-993
Section 9.5.1.3.2	
Section 9.1.4.2.2.6	ER-W3-2002-0430-000/DRN 03-1341

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

<u>Section</u>	<u>Cross References</u>
<u>Revision 13</u>	
Table 9.3-15 Sht 40 Table 9.3-15 Sht 42	ER-W3-2003-0502-001/DRN 03-2021
Figure 9.4.4	ER-W3-2003-0170-000/DRN 04-249
<u>Revision 13-A</u>	
Figure 9.3-1 Sht 6 Figure 9.3-1 Sht 9	ER-W3-2004-128/DRN 04-992
<u>Revision 13-B</u>	
Table 9.1-3 Sht. 5	ER-W3-2004-0205/DRN 04-487
Figure 9.1-5	ER-W3-2004-0377/DRN 04-1069
Table 9.2-12 Sht.2	ER-W3-2003-0489-000/DRN 04-92
Figure 9.3-2 Sht. 1	ER-W3-2001-0377-000/DRN 02-1052
Figure 9.5-1 Sht. 2 Figure 9.5-2 Sht. 2	ER-W3-2003-0769-002/DRN 04-1393
<u>Revision 14</u>	
Section 9.1.4.2.2.13 Section 9.1.4.2.3.3 Table 9.1-5 sh 1 Figure 9.1-5 Figure 9.1-17	ER-W3-2001-0305-001/DRN 02-176

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

Section

Cross References

Revision 14 Cont'd

Section 9.1.3.3	ER-W3-2001-1149-000/DRN 03-2063
Section 9.2.5.2	
Section 9.2.5.3.2	
Section 9.3-4.22	
Section 9.3.6.1.2	
Section 9.3.6.2.1	
Section 9.3.6.2.2	
Section 9.3.6.3.1	
Section 9.3.6.3.3	
Section 9.3.6.3.4	
Table 9.1-3 sh 6-8	
Table 9.2-3 sh 1-2	
Table 9.2-9	
Table 9.2-10	
Table 9.3-11	
Table 9.3-17 sh 1-2	
Figure 9.3-7	
Figure 9.3-8	
Figure 9.3-8A	
Figure 9.3-8B	
Table 9.3-4 shts 1-3	ER-W3-2001-1149-000/DRN 05-251
Section 9.1.3.1	ER-W3-2001-1149-000/DRN 05-968
Section 9.3.8.3	ER-W3-2004-0276-000/DRN 04-977
Section 9.4.1.1	
Figure 9.5-3a	ER-W3-2004-0324-000/DRN 04-1816
Section 9.2.5.3.3	ER-W3-2004-0615-000/DRN 05-446
Table 9.2.9	
Section 9.2.5.3.3	ER-W3-2004-0615-001/DRN 05-1668
Section 9.3.4.2.1.2	ER-W3-2005-0056-000/DRN 05-332
Table 9.4-10 sh 1	ER-W3-2005-0065-000/DRN 05-365
Figure 9.4-3	ER-W3-2005-0070-000/DRN 05-519
Section 9.4.5.8.1	ER-W3-2005-0145-000/DRN 05-787
<u>Revision 14-A</u>	
Section 9.1	ER-W3-2005-0396-000/DRN 05-1365
Table 9.1-8 sheet 1	
Table 9.2-4 sheet 1	ER-W3-2004-0523-000/DRN 05-1663
Table 9.2-4 sheet 2	
Figure 9.3-1 sheet 9	ER-W3-2003-0409-000/DRN 05-1434
Section 9.4.5.6.1	ER-W3-2004-0331-000/DRN 05-1480
Table 9.4-1 sheet 2	

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

Section

Cross References

Revision 14-B

Section 9.2.5.3.2	ER-W3-2005-0465-000/DRN 05-1652
Table 9.2-1 sh 1	
Table 9.2-1 sh 2	
Table 9.2-1 sh 3	
Table 9.2-3 sh 1	
Table 9.2-3 sh 2	
Table 9.2-9	
Table 9.2-10	
Figure 9.2-4	
Figure 9.2-4A	
Figure 9.2-5A	

Section 9.5.2.3	ER-W3-2005-0096-000/DRN 06-233
Figure 9.5-1 sh 2	
Figure 9.5-2 sh 2	

Figure 9.5-4	ER-W3-2005-0442-000/DRN 06-281
--------------	--------------------------------

Table 9.2-4 sh 1	ER-W3-2006-0178-000/DRN 06-500
------------------	--------------------------------

Revision 15

Section 9.4.3.5.2.3	ER-W3-2003-0735-000/DRN 03-1988
Table 9.2-5 Sh. 1	

Table 9.2-4	ER-W3-2004-0523-000/DRN 05-1663
-------------	---------------------------------

Section 9.1.4.2.2.15	ER-W3-2006-0223-000/DRN 06-843
----------------------	--------------------------------

Table 9.1-3 Sh. 1
Table 9.1-3 Sh. 2
Table 9.1-3 Sh. 3
Table 9.1-3 Sh. 4
Table 9.1-3 Sh. 7
Table 9.1-6 Sh. 1
Table 9.1-6 Sh. 2
Section 9.2.9.2.4
Table 9.2-1 Sh. 4
Table 9.3-9 Sh. 6
Table 9.3-4 Sh. 1
Table 9.3-4 Sh. 2
Table 9.3-4 Sh. 3
Table 9.3-9 Sh. 1
Section 9.4.1.2.1
Section 9.4.1.3
Table 9.4-9 Sh. 1
Table 9.4-16 Sh. 1
Table 9.5-4 Sh. 1

Table of Contents	ER-W3-2006-0281-000/DRN 06-873
-------------------	--------------------------------

Section 9.5.1.3.2	ER-W3-2006-0284-000/DRN 06-874
Table 9.5.1-3 Sh. 3	
Table 9.5.1-2 Sh. 1	

Section 9.3.6.5	ER-W3-2006-0282-000/DRN 06-886
-----------------	--------------------------------

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

<u>Section</u>	<u>Cross References</u>
<u>Revision 15 (Cont'd)</u>	
Table 9.2-3 Sh. 1 Table 9.2-3 Sh. 2 Section 9.4.1.3 Section 9.4.5.2.2 Section 9.3.6.2.1	ER-W3-2006-0223-000/DRN 06-898
Table 9.3-3	ER-W3-2006-0223-000/DRN 06-901
Section 9.2.4.5	ER-W3-2006-0223-000/DRN 06-910
Section 9.3.4.2.1.4 Table 9.3-7	ER-W3-2004-0094-003/DRN 06-1142
Table 9.5-1 Sh. 1	ER-W3-2006-0397-000/DRN 06-1167
<u>Revision 301</u>	
Section 9.5.1.2.3 Section 9.5.1.3.1 Section 9.5.1.3.2 Table 9.5.1-3 Sh. 1 Figure 9.5.1-8	EC-5000081435
Section 9.1.4.2.1.1 Section 9.1.4.2.1.2	EC-5000082257
Section 9.5.6.2 Table 9.5-4 Sh. 1 Figure 9.5-5	EC-5000082405
Section 9.1.1.3 Section 9.1.2.3 Section 9.1: References	EC-5000082411
Section 9.3.3.2.2.1	EC-2097
Section 9.4.5.2.3 Table 9.4-2 Sh. 4	EC-5000082470
<u>Revision 302</u>	
Section 9.3.6.2.1 Section 9.3.6.3.1 Table 9.3-1a	EC-935
Table 9.4-2 Sh. 1 Table 9.4-2 Sh. 3 Table 9.4-10 Sh. 1 Table 9.4-10 Sh. 2 Table 9.4-14 Sh. 1 Table 9.4-14 Sh. 2 Table 9.4-14 Sh. 3 Table 9.4-14 Sh. 4 Table 9.4-14 Sh. 5	EC-2188

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

<u>Section</u>	<u>Cross References</u>
----------------	-------------------------

Revision 302 (Continued)

Table 9.4-14 Sh. 6
Table 9.4-14 Sh. 7

Section 9.5.1.3.1	EC-4606
-------------------	---------

Section 9.5.1.1.3 Section 9.5.1.3.2	EC-9506
--	---------

Revision 303

Section 9.2.4.2 Section 9.2.5 Section 9.2.5.3.2 Section 9.2.5.3.3 Table 9.2-9	EC-530
---	--------

Section 9.1.2.1 Section 9.1: References	EC-8884
--	---------

Section 9.1.4.2.2.16	EC-11204
----------------------	----------

Section 9.3.4.2.1.2 Section 9.3.4.2.1.5	EC-14241
--	----------

Revision 304

Section 9.3.4 Table 9.3-9 Sh. 2	EC-13560
------------------------------------	----------

Section 9.5.1.3.2	EC-18551
-------------------	----------

Section 9.5.1.3.2 Figure 9.5.1-8 Figure 9.5.1-9	EC-18667
---	----------

Section 9.1.1.1 Section 9.1.1.2 Section 9.1.1.3 Section 9.1.2.1 Section 9.1.2.2 Section 9.1.2.3 Section 9.1.2.4.1 Section 9.1.2.4.2 Section 9.1.2.4.3 Section 9.1: References Table 9.1-2 Table 9.1-8 Sh. 1 Table 9.1-8 Sh. 2	EC-18742
---	----------

Section 9.5.1.3.2	EC-18843
-------------------	----------

Section 9.1.2.3	EC-22227
-----------------	----------

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

<u>Section</u>	<u>Cross References</u>
----------------	-------------------------

Revision 305

Section 9.3.4.1.1	EC-4019
Section 9.3.4.2.1.2	
Section 9.3.4.2.1.4	
Section 9.3.4.2.2	
Table 9.3-13 Sheet 3 of 4	
Table 9.3-15 Sheet 46 of 60	
Table 9.3-7	
Section 9.3.6.2.1	EC-14765
Section 9.3.6.2.2	
Section 9.3.6.2.3	
Table 9.3-20 Sheet 1 of 2	
Section 9.1.3.1	EC-8477
Section 9.1.3.2.1	
Section 9.1: References	
Table 9.1-1	
Table 9.2-2 Sheet 1 of 3	
Table 9.2-3 Sheet 1 of 2	
Table 9.2-3 Sheet 2 of 2	
Table 9.2-9	
Figure 9.1-21	
Figure 9.1-22	
Section 9.1.4.1.3	EC-14270
Section 9.1.4.2.2.14	
Section 9.1.4.2.3.2	
Section 9.1.4.3.1	
Table 9.1-7	
Figure 9.1-18	
Figure 9.1-19	
Section 9.5.1.3.2	EC-18305
Section 9.5.3.2	EC-23470
Section 9.5.1.3.2	EC-23997
Section 9.5.1.3.1	EC-25884
Section 9.5.1.3.2	
Table 9.2-1 Sheet 4 of 5	EC-26241
Table 9.5-1 Sheet 3 of 3	
Table 9.5-4 Sheet 2 of 2	
Section 9.1.2.2	EC-28458
	EC-30504
Section 9.5.6.2	EC-31660

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

<u>Section</u>	<u>Cross References</u>
----------------	-------------------------

Revision 306

Table of Contents	EC-14275
Section 9.1.2	
Section 9.1.2.1	
Section 9.1.2.2	
Section 9.1.4.1.3	
Section 9.1.4.2.1	
Section 9.1.4.2.2.14	
Section 9.1.4.2.3.2	
Section 9.1.4.3.1	
Section 9.1.5	
Section 9.1: References	
Figure 9.1-3 Sheet 1	
Figure 9.1-19	

Section 9.5.1.3.2	EC-15965
-------------------	----------

Section 9.4.3.4.1	EC-17580
Section 9.4.3.4.2	
Section 9.4.3.4.2.1	
Table 9.4-1 Sheet 1	
Figure 9.4-5	

Section 9.5.1.3.2	EC-19062
-------------------	----------

Section 9.2.5.2	EC-32877
-----------------	----------

Section 9.1.4.1.2	EC-35729
Section 9.1.4.4	

Revision 307

Figure 9.3-1 Sheet 6	EC-8435
----------------------	---------

Section 9.3.4.1.1	EC-8458
Section 9.3.4.1.2	
Table 9.3-11	
Section 9.3.6.1	
Section 9.3.6.1.2	
Section 9.3.6.3.2	
Section 9.3.6.3.3	

Section 9.2.5.3.2	EC-8465
Table 9.2-3 Sheet 1 of 2	
Table 9.2-3 Sheet 2 of 2	
Table 9.2-9	
Table 9.2-10	
Table 9.3-4 Sheet 1 of 3 thru	
Table 9.3-4 Sheet 3 of 3	
Figure 9.2-4	
Figure 9.2-4A	
Figure 9.2-5a	
Figure 9.3-8A	
Figure 9.3-8B	

WSES-FSAR-UNIT-3

UPDATE REFERENCE LIST

Chapter 9

<u>Section</u>	<u>Cross References</u>
----------------	-------------------------

Revision 307 (Continued)

Section 9.2.2.2.1	EC-30976
Table 9.2-2 Sheet 2 of 3	
Section 9.3.6.2.1	
Section 9.3.6.2.2	
Section 9.3.6.3.1	
Section 9.3.6.3.2	
Table 9.3-16 Sheet 7 of 11	

Section 9.4.5.7.1	EC-33471
-------------------	----------

Section 9.2.5.3.1	EC-38632
-------------------	----------

Section 9.3.9.2.1	EC-41095
-------------------	----------

Section 9.3.1.1	EC-41355
Section 9.3.6.3.3	
Section 9.3.9.1	
Section 9.3.9.3	
Table 9.2-4 Sheet 2 of 2	

Section 9.5.2.2.1	EC-43424
-------------------	----------

Section 9.1.4.1.3	EC-44151
-------------------	----------

Revision 308

Section 9.2.5.3.3	LBDCR 13-018
-------------------	--------------

Section 9.4.3.3.2	LBDCR 14-011
-------------------	--------------

Section 9.5.1.2.2	EC 35260
-------------------	----------

Section 9.5.1.6.4	LBDCR 13-015
-------------------	--------------

Section 9.5.1.3.2	LBDCR 14-020
-------------------	--------------

Table 9.5-4 Sh. 1 of 2	EC 43474
------------------------	----------

Revision 308A

Section 9.3	LBDCR 15-028
-------------	--------------

Revision 309

Section 9.5.6.2	LBDCR 14-017
-----------------	--------------

Table 9.1-4 Sheet 10 of 10	LBDCR 16-013
----------------------------	--------------

Table 9.1-4 Sheet 3 of 10	LBDCR 15-007
---------------------------	--------------

Figure 9.5.1-9	LBDCR 14-002
----------------	--------------

Figure 9.5.1-16

Figure 9.5.1-17

Figure 9.5.1-19

Figure 9.5-5