

WSES-FSAR-UNIT-3  
SITE CHARACTERISTICS  
CHAPTER 2

TABLE OF CONTENTS

Section	Title	Page
2.0	<u>SITE CHARACTERISTICS</u>	2.1-1
2.1	<u>GEOGRAPHY AND DEMOGRAPHY</u>	2.1-1
2.1.1	SITE LOCATION AND DESCRIPTION	2.1-1
2.1.2	EXCLUSION AREA AUTHORITY AND CONTROL	2.1-3
2.1.3	POPULATION DISTRIBUTION	2.1-5
2.1	REFERENCES	2.1-24
	<u>NEARBY INDUSTRIAL, TRANSPORTATION AND MILITARY FACILITIES</u>	2.2-1
2.2.1	LOCATIONS AND ROUTES	2.2-1
2.2.2	DESCRIPTIONS	2.2-1
→(EC-39014, R307) 2.2.3	EVALUATION OF POTENTIAL ACCIDENTS	2.2-11
←(EC-39014, R307) 2.2	REFERENCES	2.2-57
2.2A	<u>EVALUATION OF ACTUAL HAZARDOUS CHEMICAL RELEASES POSTULATED TO OCCUR NEAR THE WATERFORD 3 SITE</u>	2.2A-1
2.2A.1	ANALYSIS OF THE POSSIBLE CONSEQUENCES OF THE LIVINGSTON, LOUISIANA DERAILMENT ACCIDENT ON THE WATERFORD 3 PLANT	2.2A-1
2.2A.2	ANALYSIS OF THE POTENTIAL CONSEQUENCES OF THE 2.2A-7 DECEMBER 11, 1982 EXPLOSION AT THE UNION CARBIDE PLANT ON WSES-3	
2.2A	REFERENCES	2.2A-10
2.3	<u>METEOROLOGY</u>	2.3-1
2.3.1	REGIONAL CLIMATOLOGY	2.3-1
2.3.2	LOCAL METEOROLOGY	2.3-6
2.3.3	ONSITE METEOROLOGICAL MEASUREMENTS PROGRAM	2.3-9

# WSES-FSAR-UNIT-3

## CHAPTER 2

### TABLE OF CONTENTS (Cont'd)

Section	Title	Page
2.3.4	SHORT-TERM (ACCIDENT) DIFFUSION ESTIMATES	2.3-17
2.3.5	LONG TERM (ROUTINE) DIFFUSION ESTIMATES	2.3-20
2.3	REFERENCES	2.3-22
2.4	<u>HYDROLOGIC ENGINEERING</u>	2.4-1
2.4.1	HYDROLOGIC DESCRIPTION	2.4-1
2.4.2	FLOODS	2.4-5
2.4.3	PROBABLE MAXIMUM FLOOD (PMF) ON STREAMS AND RIVERS	2.4-12
2.4.4	POTENTIAL DAM FAILURES, SEISMICALLY INDUCED	2.4-20
2.4.5	PROBABLE MAXIMUM SURGE AND SEICHE FLOODING	2.4-20
2.4.6	PROBABLE MAXIMUM TSUNAMI FLOODING	2.4-32
2.4.7	ICE EFFECTS	2.4-32
2.4.8	COOLING WATER CANALS AND RESERVOIRS	2.4-33
2.4.9	CHANNEL DIVERSIONS	2.4-33
2.4.10	FLOODING PROTECTION REQUIREMENTS	2.4-33
2.4.11	LOW WATER CONSIDERATION	2.4-34
2.4.12	DISPERSION, DILUTION, AND TRAVEL TIMES OF ACCIDENTAL RELEASES OF LIQUID EFFLUENTS IN SURFACE WATERS	2.4-36
2.4.13	GROUNDWATER	2.4-37
2.4.14	TECHNICAL SPECIFICATIONS AND EMERGENCY OPERATION REQUIREMENTS	2.5-51
2.4	REFERENCES	2.4-52
2.5	<u>GEOLOGY AND SEISMOLOGY</u>	2.5-1
2.5.1	BASIC GEOLOGIC AND SEISMIC INFORMATION	2.5-2
2.5.2	VIBRATORY GROUND MOTION	2.5-41

WSES-FSAR-UNIT-3

CHAPTER 2

TABLE OF CONTENTS (Cont'd)

Section	Title	Page
2.5.3	SURFACE FAULTING	2.5-52
2.5.4	STABILITY OF SUBSURFACE MATERIALS	2.5-58
2.5.5	STABILITY OF SLOPES	2.5-103
2.5.6	EMBANKMENTS AND DAMS	2.5-103
2.5	REFERENCES	2.5-104
2.5	BIBLIOGRAPHY	2.5-111
2.5A	<u>LABORATORY TESTING</u>	2.5A-1
2.5A	<u>GENERAL SAMPLE HANDLING</u>	2.5A-1
2.5A.1	CLASSIFICATION TESTS	2.5A-1
2.5A.2	STRENGTH TESTS	2.5A-2
2.5A.3	CONSOLIDATION TESTS	2.5A-4
2.5A.4	ELASTIC PROPERTIES	2.5A-4
2.5A.5	LIQUEFACTION TESTS	2.5A-5
2.5A.6	SUMMARY OF TESTS RESULTS	2.5A-5
2.5B	<u>BORING LOGS</u>	2.5B-1
2.5C	<u>PROCEDURE FOR SOILS CONTROL AND FILTER AND BACKFILL SPECIFICATION</u>	2.5C-0

# WSES-FSAR-UNIT-3

## CHAPTER 2

### SITE CHARACTERISTICS

#### LIST OF TABLES

Table	Title
2.1-1	Resident Population Within 50 Miles of Waterford 3
2.1-2	Towns With Over 1,000 Persons Within 10 Miles of Waterford 3
2.1-3	Cities, Towns, and Communities With Over 10,000 Persons Within 50 Miles of Waterford 3
2.1-4	Total Estimated Peak Daily And Seasonal Transient Population 1977 and 2030
2.1-5	Peak Daily and Seasonal Transient Population Within 10 Miles Of Waterford 3
2.1-6	Estimated Average Sunday Participation In Recreational Activity Within 10 Miles of Waterford 3
2.1-7	Combined Daily And Seasonal Recreational Transient Population Within 10 Miles Of Waterford 3
2.1-8	Transportation Transient Population Within 10 Miles Of Waterford 3 (passengers per day)
2.1-9	Peak Daily Industrial Employment Within 10 Miles Of Waterford 3
2.1-10	Cumulative Population Density By Sectors Within 30 Miles Of Waterford Unit 3, 1981
2.1-11	Cumulative Population Density By Sectors Within 30 Miles of Waterford Unit 3, 2030
2.1-12	Major Transportation Facilities Within the LPZ
2.1-13	1977 Peak Daily Population Distribution Within The Low Population Zone
2.1-14	Summary Comparison Of Demographic Methodologies
2.1-15	Correlation And Regression Of Growth Rates Versus Development Suitability Within Five Miles Of Waterford 3, 1973-1977
2.1-16	Probability Of Residential Development Within Different Levels Of Development Suitability

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.2-1	Major Industries Within Five Miles Of Waterford 3
2.2-2	Truck Traffic Accidents In The Vicinity Of Waterford 3 (1974-1986)
2.2-3	Products Used, Produced, Stored, By Industries Within Five Miles Of Waterford 3
→(EC-5000082218, R301)	
2.2-3a	Industrial Facilities Storing Significant Quantities of Toxic Materials Within Five Miles of Waterford 3
2.2-3b	Hazardous Materials Stored or Processed in the Waterford 3 Vicinity
2.2-3c	Hazardous Materials Shipped on the Mississippi River by Industrial Facilities in the Waterford 3 Vicinity
→(EC-39014, R307; LBDCR 15-048, R309))	
2.2-3d	Hazardous Materials Carried on Union Pacific Railroad in 2014 in the Vicinity of Waterford 3
2.2-3e	Hazardous Materials Carried Through Good Hope, LA in 2014 on Canadian National Railway
2.2-3f	Hazardous Materials Carried on Kansas City Southern Railway Through St. Charles Parish in 2014
←(EC-39014, R307, LBDCR 15-048, R309))	
→(EC-38835, R307)	
2.2-3g	Hazardous Materials Shipped by Truck on Louisiana Highway 18 in Waterford 3 Vicinity
←(EC-38835, R307)	
2.2-4	Deleted
2.2-4a	Materials Transported New Waterford 3 Posing Potential Hazards
2.2-4b	Deleted
→(EC-39014, R307, LBDCR 15-048, R309))	
2.2-5	Hazardous Freight Transported on the Mississippi River Between River Mile 129 and 129.9 in 2013
←(EC-39014, R307, LBDCR 15-048, R309)	
2.2-6	Major Pipelines Carrying Hazardous Materials Within Two Miles of Waterford 3
2.2-7	Oil And Gas Fields Within Five Miles Of Waterford 3
←(EC-5000082218, R301)	
2.2-8	Trips and Drafts Of Vessels On The Mississippi River, Between Baton Rouge To, But Not Including, New Orleans, La., 1975
2.2-9	Commercial Vessel Casualties On The Mississippi River Between Mile 124 and 135 Reported In Fiscal Year 1976
2.2-10	Mississippi River Terminals, Docks, Mooring Locations And Warehouses In The Vicinity Of Waterford 3
2.2-11	Forecast Of Aircraft Operations For The St. John The Baptist Parish Airport

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.2-12	Aircraft Operations For New Orleans International Airport
2.2-13	Aircraft Operations Forecasts For New Orleans International Airport
2.2-14	Aircraft Accidents Occurring On Or Within Five Miles Of New Orleans International Airport, 1966-1976
2.2-15	Vessel Casualties On The Mississippi River Between New Orleans And Baton Rouge Fiscal Years 1969-1971
2.2-16	Time and Drafts Of Vessels Mississippi River - Baton Rouge, La., But Not Including New Orleans, La., 1970
2.2-17	Rail, Truck And Barge Accident Probability
2.2-18	Centerline Concentrations For Methane Plume Of 67 LBM/Sec Source, Stability Class F, Wind Speed 2.6 Ft./Sec Assuming No Buoyancy
2.2-19	Releases From Ruptured Pipelines
2.2-20	Dimension of Propane Plume Downwind of 325 Ft <sup>3</sup> /Sec Source (6 In. LPG Line) Stability Category F, Wind Speed 2.6 Ft/Sec
2.2-21	Dimension of Propane Plume Downwind of 1000 Ft/Sec Source, (8 In. LPG Line) Stability Category F, Wind Speed 2.6 Ft/Sec
2.2-22	Blast And Seismic Parameters For Shock Waves From Propane Detonations
→(EC-38835, R307) 2.2-23	Dimension Of Methane Plume Downwind Of 2893 Ft <sup>3</sup> /Sec Source Stability Category F, Wind Speed 2.6 Ft/Sec. No Buoyancy
←(EC-38835, R307) 2.2A-1	Toxic Chemicals Lost In Train Derailment
2.2A-2	Chemical Released In Derailment Posing Potential Hazards To Control Room Habitability
2.2A-3	Waterford Steam Electric Station Unit 3 Onsite Meteorological Data: 1972-1978 Summary of Maximum Persistence Occurrences
2.2A-4	Calculational Assumptions Used in Acrolein Release Analysis
2.3-1	Recurrence Interval And Wind Speed (Fastest Mile) At New Orleans, Louisiana (At 30 Ft.)
2.3-2	Fastest Mile Wind Speed And Wind Direction New Orleans, Louisiana

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF TABLES (Cont'd)

Table	Title
2.3-2(a)	Ultimate Heat Sink Meteorological Design Parameters
2.3-3	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-4	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-5	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-6	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-7	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-8	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-9	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-10	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-11	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-12	New Orleans, La. Moisant International Airport Percentage Frequencies Of Wind Direction And Speed
2.3-13	New Orleans, La. Moisant International Airport Percentage Frequencies of Wind Direction and Speed
2.3-14	New Orleans, La. Moisant International Airport Percentage Frequencies of Wind Direction and Speed
2.3-15	New Orleans, La. Moisant International Airport Percentage Frequencies of Wind Direction and Speed
2.3-15a	New Orleans, La. Moisant International Airport Percentage Frequencies of Wind Direction and Speed
2.3-16	[Wind Rose Data for January] 1973-1975 and 1978 at Waterford 3 Site 2734. Observations

## WSES-FSAR-UNIT-3

### CHAPTER 2

#### LIST OF TABLES (Cont'd)

Table	Title
2.3-17	[Wind Rose Data for February] 1973-1975 and 1977-1978 at Waterford 3 Site 2585. Observations
2.3-18	[Wind Rose Data for March] 1973-1975 and 1977 at Waterford 3 Site 2706. Observations
2.3-19	[Wind Rose Data for April] 1973-1975 and 1977 at Waterford 3 Site 2751. Observations
2.3-20	[Wind Rose Data for May] 1973-1975 and 1977 at Waterford 3 Site 2790. Observations
2.3-21	[Wind Rose Data for June] 1973-1975 and 1977 at Waterford 3 Site 2716. Observations
2.3-22	[Wind Rose Data for July] 1972-1974 and 1977 at Waterford 3 Site 2886. Observations
2.3-23	[Wind Rose Data for August] 1972-1974 and 1977 at Waterford 3 Site 2746. Observations
2.3-24	[Wind Rose Data for September] 1972-1974 and 1977 at Waterford 3 Site 2616. Observations
2.3-25	[Wind Rose Data for October] 1972-1974 and 1977 at Waterford 3 Site 2647. Observations
2.3-26	[Wind Rose Data for November] 1972-1974 and 1977 at Waterford 3 Site 2731. Observations
2.3-27	[Wind Rose Data for December] 1972-1974 and 1977 at Waterford 3 Site 2843. Observations
2.3-28	Annual Wind Rose Data for July 1972-June 1975 and February 1977-February 1978 at Waterford 3 Site 32751. Observations
2.3-29	Average Monthly And Annual Temperature For Selected Stations In The New Orleans Areas (1931-1960)
2.3-30	Mean Monthly And Annual Maximum, Minimum, Average Temperatures Moisant International Airport (1931-1960)
2.3-31	Temperature Extremes, Moisant International Airport, New Orleans, Louisiana
2.3-32	Average Monthly Occurrences Of Extreme Temperatures Moisant International Airport, New Orleans, Louisiana (1947-1972)



## WSES-FSAR-UNIT-3

### CHAPTER 2

#### LIST OF TABLES (Cont'd)

Table	Title
2.3-33	Mean Monthly And Annual Maximum, Minimum And Average Temperatures Waterford Nuclear Unit 3 On Site Data (July 1972-June 1975 And February 1977-February 1978)
2.3-34	Mean Relative Humidity And Number Of Days With Heavy Fog Moisant International Airport, New Orleans, Louisiana (1949-1972)
2.3-35	Average Monthly And Annual Precipitation For Selected Stations In The New Orleans Areas (1931-1960)
2.3-36	Extreme Monthly And Daily Precipitation (Inches) (1947-1972) And Mean Number Of Days With Rain (1947-1972) Moisant International Airport, New Orleans, Louisiana
2.3-37	Maximum Short Period Precipitation (Inches) Audubon Station, New Orleans, Louisiana (1889-1969)
2.3-38	Number Of Precipitation Occurrences By Hour Of Day For Moisant International Airport (1951-1960)
2.3-39	Annual And Seasonal Percentage Frequency Of Surface Wind Direction During Precipitation Naval Air Station-New Orleans, Louisiana, (1949-1965)
2.3-40	Percent Frequency Of Onsite Stability Classes July 1972 - June 1975 And February 1977 - February 1978
2.3-41	Seasonal And Annual Average Morning And Afternoon Mixing Heights Waterford Area
2.3-42	Wind Distribution By Stability Class At Waterford 3, January Class A
2.3-43	Wind Distribution By Stability Class At Waterford 3, January Class B
2.3-44	Wind Distribution By Stability Class At Waterford 3, January Class C
2.3-45	Wind Distribution By Stability Class At Waterford 3, January Class D
2.3-46	Wind Distribution By Stability Class At Waterford 3, January Class E
2.3-47	Wind Distribution By Stability Class At Waterford 3, January Class F

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.3-48	Wind Distribution By Stability Class At Waterford 3, January Class G
2.3-49	Wind Distribution By Stability Class At Waterford 3, February Class A
2.3-50	Wind Distribution By Stability Class At Waterford 3, February Class B
2.3-51	Wind Distribution By Stability Class At Waterford 3, February Class C
2.3-52	Wind Distribution By Stability Class At Waterford 3, February Class D
2.3-53	Wind Distribution By Stability Class At Waterford 3, February Class E
2.3-54	Wind Distribution By Stability Class At Waterford 3, February Class F
2.3-55	Wind Distribution By Stability Class At Waterford 3, February Class G
2.3-56	Wind Distribution By Stability Class At Waterford 3, March Class A
2.3-57	Wind Distribution By Stability Class At Waterford 3, March Class B
2.3-58	Wind Distribution By Stability Class At Waterford 3, March Class C
2.3-59	Wind Distribution By Stability Class At Waterford 3, March Class D
2.3-60	Wind Distribution By Stability Class At Waterford 3, March Class E
2.3-61	Wind Distribution By Stability Class At Waterford 3, March Class F
2.3-62	Wind Distribution By Stability Class At Waterford 3, March Class G
2.3-63	Wind Distribution By Stability Class At Waterford 3, April Class A

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.3-64	Wind Distribution By Stability Class At Waterford 3, April Class B
2.3-65	Wind Distribution By Stability Class At Waterford 3, April Class C
2.3-66	Wind Distribution By Stability Class At Waterford 3, April Class D
2.3-67	Wind Distribution By Stability Class At Waterford 3, April Class E
2.3-68	Wind Distribution By Stability Class At Waterford 3, April Class F
2.3-69	Wind Distribution By Stability Class At Waterford 3, April Class G
2.3-70	Wind Distribution By Stability Class At Waterford 3, May Class A
2.3-71	Wind Distribution By Stability Class At Waterford 3, May Class B
2.3-72	Wind Distribution By Stability Class At Waterford 3, May Class C
2.3-73	Wind Distribution By Stability Class At Waterford 3, May Class D
2.3-74	Wind Distribution By Stability Class AT Waterford 3, May Class E
2.3-75	Wind Distribution By Stability Class AT Waterford 3, May Class F
2.3-76	Wind Distribution By Stability Class At Waterford 3, May Class G
2.3-77	Wind Distribution By Stability Class At Waterford 3, June Class A
2.3-78	Wind Distribution By Stability Class At Waterford 3, June Class B
2.3-79	Wind Distribution By Stability Class At Waterford 3, June Class C

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF TABLES (Cont'd)

Table	Title
2.3-80	Wind Distribution By Stability Class At Waterford 3, June Class D
2.3-81	Wind Distribution By Stability Class At Waterford 3, June Class E
2.3-82	Wind Distribution By Stability Class At Waterford 3, June Class F
2.3-83	Wind Distribution By Stability Class At Waterford 3, June Class G
2.3-84	Wind Distribution By Stability Class At Waterford 3, July Class A
2.3-85	Wind Distribution By Stability Class At Waterford 3, July Class B
2.3-86	Wind Distribution By Stability Class At Waterford 3, July Class C
2.3-87	Wind Distribution By Stability Class At Waterford 3, July Class D
2.3-88	Wind Distribution By Stability Class At Waterford 3, July Class E
2.3-89	Wind Distribution By Stability Class At Waterford 3, July Class F
2.3-90	Wind Distribution By Stability Class At Waterford 3, July Class G
2.3-91	Wind Distribution By Stability Class At Waterford 3, August Class A
2.3-92	Wind Distribution By Stability Class At Waterford 3, August Class B
2.3-93	Wind Distribution By Stability Class At Waterford 3, August Class C
2.3-94	Wind Distribution By Stability Class At Waterford 3, August Class D
2.3-95	Wind Distribution By Stability Class At Waterford 3, August Class E

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.3-96	Wind Distribution By Stability Class At Waterford 3, August Class F
2.3-97	Wind Distribution By Stability Class At Waterford 3, August Class G
2.3-98	Wind Distribution By Stability Class At Waterford 3, September Class A
2.3-99	Wind Distribution By Stability Class At Waterford 3, September Class B
2.3-100	Wind Distribution By Stability Class At Waterford 3, September Class C
2.3-101	Wind Distribution By Stability Class At Waterford 3, September Class D
2.3-102	Wind Distribution By Stability Class At Waterford 3, September Class E
2.3-103	Wind Distribution By Stability Class At Waterford 3, September Class F
2.3-104	Wind Distribution By Stability Class At Waterford 3, September Class G
2.3-105	Wind Distribution By Stability Class At Waterford 3, October Class A
2.3-106	Wind Distribution By Stability Class AT Waterford 3, October Class B
2.3-107	Wind Distribution By Stability Class At Waterford 3, October Class C
2.3-108	Wind Distribution By Stability Class At Waterford 3, October Class D
2.3-109	Wind Distribution By Stability Class At Waterford 3, October Class E
2.3-110	Wind Distribution By Stability Class At Waterford 3, October Class F
2.3-111	Wind Distribution By Stability Class At Waterford 3, October Class G

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.3-112	Wind Distribution By Stability Class At Waterford 3, November Class A
2.3-113	Wind Distribution By Stability Class At Waterford 3, November Class B
2.3-114	Wind Distribution By Stability Class At Waterford 3, November Class C
2.3-115	Wind Distribution By Stability Class At Waterford 3, November Class D
2.3-116	Wind Distribution By Stability Class At Waterford 3, November Class E
2.3-117	Wind Distribution By Stability Class At Waterford 3, November Class F
2.3-118	Wind Distribution By Stability Class At Waterford 3, November Class G
2.3-119	Wind Distribution By Stability Class At Waterford 3, December Class A
2.3-120	Wind Distribution By Stability Class At Waterford 3, December Class B
2.3-121	Wind Distribution By Stability Class At Waterford 3, December Class C
2.3-122	Wind Distribution By Stability Class At Waterford 3, December Class D
2.3-123	Wind Distribution By Stability Class At Waterford 3, December Class E
2.3-124	Wind Distribution By Stability Class At Waterford 3, December Class F
2.3-125	Wind Distribution By Stability Class At Waterford 3, December Class G
2.3-126	Wind Distribution By Stability Class At Waterford 3, Annual Total, Class A
2.3-127	Wind Distribution By Stability Class At Waterford 3, Annual Total, Class B

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.3-128	Wind Distribution By Stability Class At Waterford 3, Annual Total, Class C
2.3-129	Wind Distribution By Stability Class At Waterford 3, Annual Total, Class D
2.3-130	Wind Distribution By Stability Class At Waterford 3, Annual Total, Class E
2.3-131	Wind Distribution By Stability Class At Waterford 3, Annual Total, Class F
2.3-132	Wind Distribution By Stability Class At Waterford 3, Annual Total, Class G
2.3-133	Average Monthly Data Recovery, Waterford Onsite Meteorological Monitoring Program (July 1972-June 1975 and February 1977-February 1978)
2.3-134	Waterford SES-Unit 3 Annual Average Dilution Factors (July 1972-June 1975 and February 1977-February 1978)
2.3-135	Waterford SES-Unit 3 Annual Average Dilution Factors At The Minimum Site Boundary (914m) (July 1972-June 1975 and February 1977-February 1978)
→(DRN 03-2055, R14) 2.3-136	Waterford SES-Unit 3 Short-term (Accident) Dilution Factors (Sec/m <sup>3</sup> ) (1997-2001)
←(DRN 03-2055, R14) 2.3-137	Storms in Excess of 50 MPH Since 1963
2.3-138	Waterford Onsite Meteorological Monitoring System
2.3-139	Summary of Meteorological Monitoring Program Parameters Measured At Primary And Backup Systems
→(DRN 01-156, R11-A) 2.3-140	DELETED
←(DRN 01-156, R11-A) 2.3-141	Waterford Operational Meteorological Monitoring System Accuracies
2.4-1	Municipal Water Intakes Downstream Of Waterford 3 Discharge (River Mile 129.6)
2.4-2	Flood-Crest Elevation Near The Waterford Site

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF TABLES (Cont'd)

Table	Title
2.4-3	Maximum Discharges for 1973 Flood
2.4-4	Original And Adjusted Project Design Flood Flow Lines
2.4-5	Streamflow In The Mississippi River 1900-1976
→(DRN 99-2493) 2.4-6	DELETED
2.4-6a	DELETED
2.4-6b	DELETED
2.4-6c	DELETED
←(DRN 99-2493) 2.4-7	Hypothetical Flood Peaks On The Mississippi And Atchafalaya Rivers
2.4-8	Computations Of Static And Dynamic Head Following Levee Failure
2.4-9	Computations Of Static And Dynamic Head
2.4-10	Probable Maximum Hurricane Parameters Zone B - Mile 660 - New Orleans, Louisiana
2.4-10a	Comparison Of Hurricane Surge Computations For South Pass Approach
2.4-11	Continental Shelf Profiles For Open Coast Surge Computations
2.4-12	Frequency Analysis Of Mississippi River Discharge Charge At Tarbert Landing
2.4-13	Water Well And Test Hole Data For St. Charles Parish
2.4-14	Local Detailed Well Survey
2.4-15	Groundwater Quality At Site
2.5-1	Approximate Periods Of Movements Along Growth Faults In Louisiana
2.5-2	Oil Well Logs Used In Structural Correlations
2.5-3	Tonal Anomalies And Linear Trends In The Site Area



WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF TABLES (Cont'd)

Table	Title
2.5-4	Utilized Southern Louisiana Salt Domes
2.5-5	Salt Domes Near Waterford Site
2.5-6	Listing Of Historic Earthquakes In Order Of Distance From Waterford Site
2.5-7	Listing Of Historic Earthquakes In Order Of Decreasing Intensity
2.5-8	Listing Of Historic Earthquakes In Chronological Order
2.5-9	Summary Of Intensity Data Concerning The New Madrid Series, Donaldsonville Earthquake, Gulfport Earthquake, And Baton Rouge Earthquake
2.5-10	Results From Parametric Study Of Seismic Wave Transmission Characteristics
2.5-11	Results From Parametric Study Of Seismic Wave Transmission Characteristics
2.5-12	Pleistocene Soil Strata Zones
2.5-13	Unified Soil Classifications
2.5-14	Properties Of Subsurface Materials Design Values
2.5-15	Compacted Class A Backfill Index Properties Test Results
2.5-16	Monitoring Point Locations
2.5A-1	Laboratory Test Summary Table
2.5A-2	Summary Of Laboratory Permeability Tests
2.5A-3	Coefficient Of Permeability Computed From Consolidation Data
2.5A-4	Summary Of Organic Content Data
2.5A	Notes On Tables

WSES-FSAR-UNIT-3  
SITE CHARACTERISTICS

CHAPTER 2

LIST OF FIGURES

Figure	Title
2.1-1	THE REGION WITHIN 50 MILES OF WATERFORD 3
2.1-2	THE AREA WITHIN 5 MILES OF WATERFORD 3
2.1-3	WATERFORD 3 SITE AND NEARBY STRUCTURES
2.1-4	EFFLUENT RELEASE POINTS AND RESTRICTED AREA BOUNDARY
2.1-4a	WATERFORD 3 SITE EXCLUSION ZONE AND PROPERTY BOUNDARY
2.1-5	1977 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-6	1980 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-7	1981 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-8	1990 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-9	2000 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-10	2010 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-11	2020 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-12	2030 RESIDENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-13	THE REGION WITHIN 10 MILES OF WATERFORD 3
2.1-14	1977 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-15	1980 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-16	1981 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-17	1990 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-18	2000 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-19	2010 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-20	2020 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-21	2030 RESIDENT POPULATION WITHIN 50 MILES OF WATERFORD 3
2.1-22	1977 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3

WSES-FSAR-UNIT-3  
CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.1-23	1980 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-24	1981 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-25	1990 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-26	2000 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-27	2010 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-28	2020 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-29	2030 TRANSIENT POPULATION WITHIN 10 MILES OF WATERFORD 3
2.1-30	RECREATIONAL FACILITIES WITHIN 10 MILES OF WATERFORD 3
2.1-31	TRANSPORTATION NETWORK WITHIN 10 MILES OF WATERFORD 3
2.1-32	MAJOR INDUSTRIAL PROPERTIES WITHIN 10 MILES OF WATERFORD 3
2.1-33	LOW POPULATION ZONE CULTURAL FEATURES
2.1-34	LOW POPULATION ZONE 1977 PEAK POPULATION DISTRIBUTION
2.2-1	MAJOR INDUSTRIES AND OIL AND GAS FIELDS WITHIN 5 MILES OF WATERFORD 3
2.2-2	TRANSPORTATION FACILITIES WITHIN 5 MILES OF WATERFORD 3
→(EC-5000082218, R301)	
2.2-3	DELETED
→(EC-39014, R307; LBDCR 15-048, R309)	
2.2-3A	PIPELINES OF ACADIAN & ENTERPRISE PELICAN IN VICINITY OF WATERFORD 3
←(LBDCR 15-048, R309)	
2.2-3B	PIPELINES OF AIR PRODUCTS & NUSTAR IN WATERFORD 3 VICINITY
2.2-3C	PIPELINES OF CHEVRON & BRIDGELINE IN VICINITY OF WATERFORD 3
←(EC-39014, R307)	
2.2-3D	PIPELINES OF ENTERPRISE PRODUCTS OPERATING CO. IN VICINITY OF WATERFORD 3
2.2-3E	PIPELINES OF GULF SOUTH PIPELINE IN VICINITY OF WATERFORD 3
←(EC-5000082218, R301)	
→(EC-39014, R307)	
2.2-3F	PIPELINES OF SHELL OIL & DCP MIDSTREAM IN VICINITY OF WATERFORD 3
2.2-3G	PIPELINES OF UCAR IN VICINITY OF WATERFORD 3
←(EC-39014, R307)	
2.2-4	AIRPORTS AND LOW ALTITUDE FEDERAL AIRWAYS IN THE VICINITY OF WATERFORD 3
2.2-5	FIGURE NUMBER NOT USED
2.2-5A	LANDING AND APPROACH PATHS, NEW ORLEANS INTERNATIONAL AIRPORT
2.2-5B	LANDING AND APPROACH PATHS, NEW ORLEANS INTERNATIONAL AIRPORT

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.2-6	AIR ALERT ZONE IN THE VICINITY OF WATERFORD 3
2.2-7	OVERPRESSURE VS. SCALED RANGE FOR SURFACE BURST
2.2-8	DETONABLE CLOUD FOR 6" TEXACO LPG LINE
2.2-9	DETONABLE CLOUD FOR 8" UNION CARBIDE LINE
2.2-10	BLAST WAVE PARAMETER VS. SCALED DISTANCE
2.2-11	ENTRAINMENT COEFFICIENT $\alpha$ VS. DENSIMETRIC FROUDE NO. (FROM REFERENCE 20)
2.2-12	100 LB/SEC BREAK GRAVITY SLUMPING MODEL RESULTS
2.2-13	VOLUME DISTANCE OF 100 LB/SEC SOURCE OF WIDTH L GIVING 2.4% CONCENTRATION
2.2-14	LATERAL DIFFUSION, $\sigma_y$ , VS. DOWNWIND DISTANCE FROM SOURCE FOR PASQUILL'S TURBULENCE TYPES (SOURCE: REF. 71)
2.2-15	FAMILY OF HUGONIOT CURVES CORRESPONDING TO ZERO & 100 PERCENT REACTION OF STOICHIOMETRIC PROPANE AND AIR
2.2-16	OVERPRESSURES GENERATED BY DEFLAGRATIONS OF PROPANE AND HYDROGEN OXYGEN AND AIR MIXTURES
2.2-17	QUADRATIC REGRESSION LINE MAXIMUM DEBRIS DISTANCE VS. EQUIVALENT YIELD
2.2A-1	TOPOGRAPHIC MAP OF SITE AND VICINITY
2.2A-2	PERSISTENCE OF CALMS
2.2A-3	CONDITIONAL PROBABILITY OF EXCEEDING DISTANCE FROM TRACK FOLLOWING A FREIGHT TRAIN DERAILMENT
2.2A-4	PROBABILITY OF OCCURRENCE OF POOLS OR CLOUDS OF GIVEN DIMENSION - THAT MIGHT IGNITE AND CAUSE FIRES/EXPLOSIONS (GIVEN A SPILL HAS OCCURRED)
2.2A-5	FLAME HEIGHT VS. SIZE OF FIRE
2.2A-6	PROBABILITY OF MISSILES REACHING A DISTANCE FROM ACCIDENT LOCATION
2.2A-7	QUADRATIC REGRESSION LINE MAXIMUM DEBRIS DISTANCE VS. EQUIVALENT YIELD
2.2A-8	ACROLEIN CONCENTRATION VS. TIME
2.3-1	JANUARY WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.3-2	FEBRUARY WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-3	MARCH WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-4	APRIL WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-5	MAY WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-6	JUNE WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-7	JULY WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-8	AUGUST WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-9	SEPTEMBER WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-10	OCTOBER WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-11	NOVEMBER WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-12	DECEMBER WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-13	ANNUAL WIND ROSE MOISANT INTERNATIONAL AIRPORT, NEW ORLEANS, LOUISIANA
2.3-14	ON-SITE WIND ROSE - JANUARY 1973-1975 & 1978
2.3-15	ON-SITE WIND ROSE - FEBRUARY 1973-1975 & 1977-1978
2.3-16	ON-SITE WIND ROSE - MARCH 1973-1975 & 1977
2.3-17	ON-SITE WIND ROSE - APRIL 1973-1975 & 1977
2.3-18	ON-SITE WIND ROSE - MAY 1973-1975 & 1977
2.3-19	ON-SITE WIND ROSE - JUNE 1973-1975 & 1977
2.3-20	ON-SITE WIND ROSE - JULY 1972-1974 & 1977

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.3-21	ON-SITE WIND ROSE - AUGUST 1972-1974 & 1977
2.3-22	ON-SITE WIND ROSE - SEPTEMBER 1972-1974 & 1977
2.3-23	ON-SITE WIND ROSE - OCTOBER 1972-1974 & 1977
2.3-24	ON-SITE WIND ROSE - NOVEMBER 1972-1974 & 1977
2.3-25	ON-SITE WIND ROSE - DECEMBER 1972-1974 & 1977
2.3-26	ON-SITE WIND ROSE - ANNUAL 1972-1975 & 1977-78
2.3-27	FIGURE NUMBER NOT USED
2.3-27a	MAXIMUM TOPOGRAPHIC ELEVATION VS. DISTANCE FROM CENTERLINE OF PLANT (SHEET 1 OF 4)
2.3-27b	MAXIMUM TOPOGRAPHIC ELEVATION VS. DISTANCE FROM CENTERLINE OF PLANT (SHEET 2 OF 4)
2.3-27c	MAXIMUM TOPOGRAPHIC ELEVATION VS. DISTANCE FROM CENTERLINE OF PLANT (SHEET 3 OF 4)
2.3-27d	MAXIMUM TOPOGRAPHIC ELEVATION VS. DISTANCE FROM CENTERLINE OF PLANT (SHEET 4 OF 4)
2.3-28	TOPOGRAPHIC FEATURES WITHIN 5 MILES OF SITE
2.3-29	LOCATION OF METEOROLOGICAL TOWER
2.3-30	W1034 LOW THRESHOLD RECORDING WIND SYSTEM
2.3-31	W1034 LOW THRESHOLD RECORDING WIND SYSTEM
2.3-32	W1034 LOW THRESHOLD RECORDING WIND SYSTEM
2.3-33	SPECIFICATIONS FOR THE GILL ANEMOMETER BIVANE - MODEL NO. 21001
2.3-34	PHOTOGRAPH OF THE GILL ANEMOMETER BIVANE - MODEL NO. 21002
2.3-35	SPECIFICATION OF THE W101-P SKYVANE I WIND SENSOR
2.3-36	PHOTOGRAPH OF THE W101-P SKYVANE I WIND SENSOR
2.3-37	SPECIFICATIONS OF THE M731 DIGITAL DATA LOGGER
2.3-38	PHOTOGRAPH OF THE M731 DIGITAL DATA LOGGER

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF FIGURES (Cont'd)

Figure	Title
2.3-39	HORIZONTAL DISPERSION COEFFICIENTS
2.3-40	VERTICAL DISPERSION COEFFICIENTS
2.3-41	DIRECTIONALLY INDEPENDENT - CUM. FREQUENCY DISTRIBUTION OF X/Q AT THE MIN. SITE BOUNDARY - JULY 1972 - JUNE 1975 & FEB 1977-FEB 1978 - 1 HOUR PERIOD
2.3-42	DIRECTIONALLY INDEPENDENT - CUM. FREQUENCY DISTRIBUTION OF X/Q AT THE OUTER BOUNDARY OF THE LOW POPULATION ZONE - JULY 1972-JUNE 1975 & FEB 1977 - FEB 1978 - 8 HOUR PERIOD
2.3-43	DIRECTIONALLY INDEPENDENT - CUM. FREQUENCY DISTRIBUTION OF X/Q AT THE OUTER BOUNDARY OF THE LOW POPULATION ZONE - JULY 1972-JUNE 1975 & FEB 1972 - FEB 1978 - 16 HOUR PERIOD
2.3-44	DIRECTIONALLY INDEPENDENT - CUM. FREQUENCY DISTRIBUTION OF X/Q AT THE OUTER BOUNDARY OF THE LOW POPULATION ZONE - JULY 1972-JUNE 1975 & FEB 1972 - FEB 1978 - 3 DAY PERIOD
2.3-45	DIRECTIONALLY INDEPENDENT - CUM. FREQUENCY DISTRIBUTION OF X/Q AT THE OUTER BOUNDARY OF THE LOW POPULATION ZONE JULY 1972-JUNE 1975 & FEB 1972 - FEB 1978 - 26 DAY PERIOD
2.3-46	DIAGRAM OF PRIMARY METEOROLOGICAL TOWER COMPOUND
2.3-47	LOCATIONS OF PRIMARY AND BACKUP METEOROLOGICAL MONITORING SYSTEMS
→(DRN 03-2055, R14) 2.3-48	SOURCE AND RECEPTOR LOCATIONS FOR CONTROL ROOM ATMOSPHERIC DISPERSION CALCULATIONS
←(DRN 03-2055, R14) 2.4-1	TOPOGRAPHIC MAP OF SITE AND VICINITY
2.4-2	REGIONAL HYDROGRAPHIC FEATURES
2.4-3	FLOOD CONTROL SCHEME IN THE LOWER MISSISSIPPI RIVER
2.4-4	COMPARISON BETWEEN 1973 FLOOD DISCHARGE & PDF DISCHARGE
2.4-5	SURFACE AND GROUNDWATER PUMPAGE TRENDS FOR ST. CHARLES PARISH
2.4-6	STAGE HYDROGRAPH AT RED RIVER LANDING, LA.
2.4-7	FLOOD FREQUENCY AT TARBERT LANDING AND BATON ROUGE, MISS. RIVER BY LOG-PEARSON TYPE III DISTRIBUTION
2.4-8	ROOF DRAINAGE
2.4-9	DETERMINATION OF MANNING ROUGHNESS COEFFICIENT

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF FIGURES (Cont'd)

Figure	Title
2.4-10	PROJECT DESIGN FLOOD FLOW LINE FROM VENICE TO NEW ORLEANS
2.4-11	BONNET CARRE' SPILLWAY OPERATION
2.4-12	PROJECT DESIGN FLOOD FLOW LINE AND LEVEE DESIGN GRADE
2.4-13	FLOOD STAGE - DISCHARGE CURVE AT WATERFORD SITE
2.4-14	COMPUTED RIVER PROFILE WITH FULL LEVEE DISCHARGE
2.4-15	DELETED
2.4-16	DELETED
2.4-17	DELETED
2.4-18	DELETED
2.4-19	DELETED
2.4-20	WATERFORD 3-SITE AREA
2.4-21	WATER PROFILE UNDER SUDDEN LEVEE FAILURE CONDITION
2.4-22	CRITICAL PMH PATHS
2.4-23	OPEN COAST SURGE HYDROGRAPH MOUTH OF MISSISSIPPI RIVER
2.4-24	EFFECT OF PMH SURGE ON RIVER STAGE PROFILE
2.4-25	OPEN COAST SURGE MAXIMUM FLOOD LEVELS
2.4-26	FLOW DURATION CURVE AT SITE
2.4-27	PEAK CONCENTRATION VS. DOWNSTREAM DISTANCE
2.4-28	LOCATION MAP OF GROUNDWATER REGION, SITE AREA, AND SITE
2.4-29	POINT BAR DEPOSITS OF MISSISSIPPI RIVER
2.4-30	CONFIGURATION OF THE TOP OF THE GRAMERCY AQUIFER
2.4-31	CONFIGURATION OF THE TOP OF THE NORCO AQUIFER
2.4-32	CONFIGURATION OF THE TOP OF THE GONZALES - NEW ORLEANS AQUIFER
2.4-33	GENERALIZED CROSS-SECTION THROUGH WATERFORD SITE



# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF FIGURES (Cont'd)

Figure	Title
2.4-34	CONFIGURATION OF THE POTENTIOMETRIC SURFACE IN THE GRAMERCY AQUIFER, FALL 1960
2.4-35	CONFIGURATION OF THE POTENTIOMETRIC SURFACE IN THE NORCO AQUIFER, FALL 1965
2.4-36	WATER LEVEL AND PUMPAGE NORCO AQUIFER AT NORCO
2.4-37	CONFIGURATION OF THE POTENTIOMETRIC SURFACE IN THE GONZALES-NEW ORLEANS AQUIFER, FALL 1965
2.4-38	WATER LEVELS IN GONZALES - NEW ORLEANS AQUIFER
2.4-39	WATER WELLS AND TEST HOLES IN SITE AREA
2.4-40	AREA OF DETAILED WELL SURVEY
2.4-41	AVERAGE MONTHLY GROUND WATER REQUIREMENTS FOR ST. JAMES, ST. CHARLES AND ST. JOHN THE BAPTIST PARISHES; 1970 - 2020
2.4-42	PIEZOMETRIC SURFACE IN E1 - 77 FT. SAND
2.4-43	ASSUMED PIEZOMETRIC SURFACE IN RECENT MATERIAL
2.5-1	SITE LOCATION MAP
2.5-2	REGIONAL PHYSIOGRAPHIC MAP (LAND)
2.5-3	REGIONAL PHYSIOGRAPHIC (SUBMARINE)
2.5-4	DELTAS OF THE MISSISSIPPI RIVER
2.5-5	GENERALIZED REGIONAL CROSS SECTIONS
2.5-6	REGIONAL STRATIGRAPHIC COLUMN
2.5-7	REGIONAL SURFICIAL GEOLOGY MAP GULF COASTAL PLAIN
2.5-8	SALT BASIN LOCATIONS (GENERALIZED)
2.5-9	GENERALIZED REGIONAL GROSS-SECTIONS
2.5-10	REGIONAL STRUCTURE MAP
2.5-11	REGIONAL BOUGUER GRAVITY ANOMALY MAP
2.5-12	VACHERIE FISSURE

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5-13	FISK'S FEATURES OF THE DELTAIC PLAIN
2.5-14	WATERFORD SITE BOUNDARIES
2.5-15	TOPOGRAPHIC MAP OF SITE AND VICINITY
2.5-16	SURFACE GEOLOGY IN THE SITE AREA
2.5-17	EXAMPLE PETROLEUM TEST WELL ELECTRIC LOG SHOWING SITE AREA STRATIGRAPHY AND MARKER HORIZONS
2.5-18	OIL AND GAS TEST WELLS USED IN SITE STRUCTURE STUDY
2.5-19	FAULT SURFACES IN THE SITE AREA
2.5-20	SITE STRUCTURE - HORIZON 1 FROM ELECTRIC LOG SIGNATURE
2.5-21	SITE STRUCTURE - HORIZON 2 FROM ELECTRIC LOG SIGNATURE
2.5-22	SITE STRUCTURE - HORIZON 3 FROM ELECTRIC LOG SIGNATURE (LOWEST DATUM WITHOUT FAULTING)
2.5-23	SITE STRUCTURE - HORIZON 4 FROM ELECTRIC LOG SIGNATURE (HIGHEST DATUM WHICH REFLECTS FAULTING PATTERN)
2.5-24	SITE STRUCTURE - HORIZON 5 FROM ELECTRIC LOG SIGNATURE (RIDGEFIELD SAND)
2.5-25	SITE STRUCTURAL CROSS SECTION A
2.5-26	SITE STRUCTURAL CROSS SECTION B
2.5-27	SITE STRUCTURAL CROSS SECTION C
2.5-27a	SITE STRUCTURAL CROSS-SECTION D
2.5-27b	SITE STRUCTURAL CROSS-SECTION E
2.5-28	GEOLOGIC SECTION X-X'
2.5-29	GEOLOGIC SECTION Y-Y'
2.5-30	GEOLOGIC MAP OF WATERFORD 3 EXCAVATION
2.5-30a	TOP OF PLEISTOCENE CONTOUR MAP
2.5-30b	TOP OF PLEISTOCENE STUDY SECTION 1-1

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF FIGURES (Cont'd)

Figure	Title
2.5-30c	TOP OF PLEISTOCENE STUDY SECTION 2-2
2.5-30d	TOP OF PLEISTOCENE STUDY SECTION 3-3
2.5-30e	TOP OF PLEISTOCENE STUDY SECTION 4-4
2.5-30f	LOCATION MAP FOR CROSS-SECTION 5-5
2.5-30g	CROSS-SECTION 5-5
2.5-31	TONAL ANOMALIES & LINEAR TRENDS IN THE SITE AREA
2.5-31a	ELEVATION OF TOP OF PLEISTOCENE DEPOSITS
2.5-32	FIGURE NUMBER NOT USED
→(DRN 01-360) 2.5-32a	ELECTRIC LOG BORING TEST NO. B-3*
2.5-32b	ELECTRIC LOG COMPANY BORE TEST NO. B-5*
2.5-32c	ELECTRIC LOG COMPANY NO. B-7*
2.5-32d	ELECTRIC LOG BORING COMPANY NO. 41*
2.5-32e	ELECTRICAL LOG BORING NO. 42*
2.5-32f	ELECTRICAL LOG BORING NO. 26*
←(DRN 01-360) 2.5-33	SITE BORING PLAN
2.5-34	TIME - DISTANCE PLOT FOR FIGURE 27 SEISMIC TRAVERSE A-A'
2.5-35	SEISMIC TRAVERSE A-A'
2.5-36	SEISMIC TRAVERSE B-B'
2.5-37	SEISMIC TRAVERSE C-C'
2.5-38	SEISMIC TRAVERSE D-D'

→(DRN 01-360)

\* Figures 2.5-32(a) through 2.5-32(f) are classified as historical pursuant to Waterford 3 Site Procedure W4.504 and Nuclear Energy Institute (NEI) 98-03. The figures have been physically removed from the UFSAR. However, the figures are incorporated by reference, and thus they continue to be a part of the UFSAR. These figures are available for references and use in Document Control, and they may be found as record ER-W3-01-0268-00-00 / DRN 01-360.

←(DRN 01-360)

## WSES-FSAR-UNIT-3

### CHAPTER 2

#### LIST OF FIGURES (Cont'd)

Figure	Title
2.5-39	OIL & GAS PRODUCTION IN THE SITE AREA
2.5-40	CHANGE IN BENCHMARK ELEVATIONS 1938-1964
2.5-41	BENCHMARK LOCATION MAP SHOWING OIL AND GAS PRODUCTION NEAR MISSISSIPPI RIVER
2.5-42	HISTORIC EARTHQUAKE EPICENTERS WITH PROVINCES OF UNIQUE CRUSTAL PATTERNS, GEOLOGIC HISTORY AND EARTHQUAKE HISTORY
2.5-42a	SEISMIC REFLECTION COVERAGE MAP
2.5-43	USC & GS ISOSEISMAL MAP OF DONALDSONVILLE EARTHQUAKE - OCTOBER 19, 1930
2.5-44	WATERFORD SITE INTENSITY ACCELERATION RELATIONSHIP
2.5-45	SYNTHETIC EARTHQUAKE TIME - HISTORY
2.5-46	VACHERIE FISSURE DISPLACEMENT ACROSS FURROW
2.5-47	VACHERIE FISSURE SHAPE OF FISSURE
2.5-48	BORING PLOT PLAN
2.5-49	BORING PROFILE A-A'
2.5-50	BORING PROFILE B-B' & C-C'
2.5-51	BORING PROFILE D-D'
2.5-52	BORING PROFILE E-E' & F-F'
2.5-53	GRAIN SIZE DISTRIBUTION SUMMARY CURVE GRADE TO -40 FT. MSL
2.5-54	GRAIN SIZE DISTRIBUTION SUMMARY CURVE -40 FT. MSL TO -77 FT. MSL
2.5-55	GRAIN SIZE DISTRIBUTION SUMMARY CURVE -77 FT. MSL TO -92 FT. MSL
2.5-56	GRAIN SIZE DISTRIBUTION SUMMARY CURVE -92 FT. MSL TO -108 FT. MSL
2.5-57	GRAIN SIZE DISTRIBUTION SUMMARY CURVE -108 FT. MSL TO -116 FT. MSL
2.5-58	GRAIN SIZE DISTRIBUTION SUMMARY CURVE -127 FT. MSL TO -317 FT. MSL
2.5-59	GRAIN SIZE DISTRIBUTION SUMMARY CURVE -317 FT. MSL TO -500 FT. MSL

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5-60	LIQUID LIMIT VS. PLASTICITY INDEX GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5-61	LIQUID LIMIT VS. PLASTICITY INDEX -40 FT. MSL TO -77 FT. MSL
2.5-62	LIQUID LIMIT VS. PLASTICITY INDEX -92 FT. MSL TO -108 FT. MSL
2.5-63	LIQUID LIMIT VS. PLASTICITY INDEX - 108 FT. MSL TO -116 FT. MSL
2.5-64	LIQUID LIMIT VS. PLASTICITY INDEX -116 FT. MSL TO -127 FT. MSL
2.5-65	LIQUID LIMIT VS. PLASTICITY INDEX -127 FT. MSL TO -317 FT. MSL
2.5-66	UNCONFINED COMPRESSIVE STRENGTH AND COHESION VS. DEPTH
2.5-67	UNCONSOLIDATED UNDRAINED SHEAR STRENGTH GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5-68	UNCONSOLIDATED UNDRAINED SHEAR STRENGTH -40 FT. MSL TO -77 FT. MSL
2.5-69	UNCONSOLIDATED UNDRAINED SHEAR STRENGTH -127 FT MSL TO -317 FT MSL
2.5-70	CONSOLIDATED UNDRAINED SHEAR STRENGTH GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5-71	CONSOLIDATED UNDRAINED SHEAR STRENGTH -108 FT. MSL TO -116 FT. MSL
2.5-72	DRAINED SHEAR STRENGTH GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5-73	DRAINED SHEAR STRENGTH -77 FT. MSL TO -92 FT. MSL
2.5-74	DRAINED SHEAR STRENGTH - PLEISTOCENE CLAYS
2.5-75	OVERCONSOLIDATION RATIO VS. DEPTH
2.5-76	SEISMIC WAVE VELOCITY & SHEAR MODULUS VS. DEPTH
2.5-77	SHEAR MODULUS & DAMPING VS. STRAIN-RECENT MATERIAL (GRADE TO -40 FT. MSL)
2.5-78	SHEAR MODULUS & DAMPING VS. STRAIN-UPPER PLEISTOCENE (-40 FT. MSL TO -317 FT. MSL)
2.5-79	SHEAR MODULUS & DAMPING VS. STRAIN-LOWER PLEISTOCENE (BELOW -317 FT. MSL)

# WSES-FSAR-UNIT-3

## CHAPTER 2

### LIST OF FIGURES (Cont'd)

Figure	Title
2.5-80	GENERALIZED SITE CROSS SECTION
2.5-81	EXCAVATION PLAN
2.5-82	EXCAVATIONS SECTIONS
2.5-83	DEWATERING SYSTEM PLAN
2.5-84	COMPACTED BACKFILL - STATISTICAL STUDY
2.5-85	COMPACTED BACKFILL - DRY DENSITY VS. RELATIVE DENSITY
2.5-86	COMPACTED BACKFILL - COMPACTION CURVE & GRAIN SIZE DISTRIBUTION CURVE
2.5-87	COMPACTED BACKFILL - EARTH PRESSURE COEFFICIENT VS. RADIAL STRAIN
2.5-88	COMPACTED BACKFILL - ACTIVE - PASSIVE MOHR'S CIRCLE PLOTS
2.5-89	SHEAR MODULUS & DAMPING VS. STRAIN-COMPACTED BACKFILL
2.5-90	CYCLIC SHEAR STRENGTH - COMPACTED BACKFILL
2.5-91	RESPONSE ANALYSIS MODEL
2.5-92	SHEAR STRESS AND ACCELERATION VS. DEPTH
2.5-93	FIGURE NUMBER NOT USED
2.5-93a	GRAIN SIZE ANALYSES OF -55 FT. MSL MATERIALS
2.5-93b	GRAIN SIZE ANALYSES OF -55 FT. MSL MATERIALS
2.5-93c	GRAIN SIZE ANALYSES OF -55 FT. MSL MATERIALS
2.5-93d	GRAIN SIZE ANALYSES OF -55 FT. MSL MATERIALS
2.5-93e	GRAIN SIZE ANALYSES OF -55 FT. MSL MATERIALS
2.5-93f	GRAIN SIZE ANALYSES OF -55 FT. MSL MATERIALS
2.5-94	COMPACTION CURVES FOR -55 FT. MSL MATERIALS
2.5-95	FIGURE NUMBER NOT USED
2.5-95a	GRAIN SIZE ANALYSES OF -77 FT. MSL MATERIALS

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5-95b	GRAIN SIZE ANALYSES OF -77 FT. MSL MATERIALS
2.5-95c	GRAIN SIZE ANALYSES OF -77 FT. MSL MATERIALS
2.5-96	CYCLIC SHEAR STRENGTH - IN SITU MATERIAL
2.5-97	LIQUEFACTION POTENTIAL FACTOR OF SAFETY PLOT
2.5-98	GRAIN SIZE AND VOID RATIO COMPARISONS WITH LEE AND FITTON
2.5-99	CYCLIC TEST COMPARISONS WITH LEE AND FITTON
2.5-100	STATIC PRESSURE DIAGRAM
2.5-101	DYNAMIC EARTH PRESSURE DIAGRAM
2.5-102	DESIGN CONCEPT OUTLINE
2.5-103	BEARING PRESSURE HISTORY AT -47 FT. MSL
2.5-104	CONSTRUCTION DIAGRAM - STAGE 1
2.5-105	CONSTRUCTION DIAGRAM - STAGE 2
2.5-106	CONSTRUCTION DIAGRAM - STAGE 3
2.5-107	CONSTRUCTION DIAGRAM - STAGE 4
2.5-108	CONSTRUCTION DIAGRAM - STAGE 5
2.5-109	CONSTRUCTION DIAGRAM - STAGE 6
2.5-110	CONSTRUCTION DIAGRAM - STAGE 7
2.5-111	CONSTRUCTION DIAGRAM - STAGE 8
2.5-112	INSTRUMENTATION PLOT PLAN
2.5-112a	SETTLEMENT MONITORING POINTS (1981-84)
2.5-112b	PRIMARY SETTLEMENT MONITORING POINT LOCATIONS (1985-1986)
2.5-112c	SECONDARY SETTLEMENT MONITORING POINT LOCATIONS (1985-1986)
2.5-112d	SETTLEMENT MONITORING POINT LOCATIONS
2.5-113	PIEZOMETER, HEAVE POINT AND EXTENSOMETER RESPONSES SHEET 1 OF 5

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5-113	PIEZOMETER, HEAVE POINT AND EXTENSOMETER RESPONSES SHEET 2 OF 5
2.5-113	PIEZOMETER, HEAVE POINT AND EXTENSOMETER RESPONSES SHEET 3 OF 5
2.5-113	PIEZOMETER, HEAVE POINT AND EXTENSOMETER RESPONSES SHEET 4 OF 5
2.5-113	PIEZOMETER, HEAVE POINT AND EXTENSOMETER RESPONSES SHEET 5 OF 5
2.5-114	INCLINOMETER MOVEMENT NORTH-SOUTH DIRECTION
2.5-115	INCLINOMETER MOVEMENT EAST-WEST DIRECTION
2.5-116	SITE AREA SETTLEMENT SHEET 1 OF 2
2.5-116	SITE AREA SETTLEMENT SHEET 2 OF 2
2.5-117	COMPOSITE FOUNDATION MAT SETTLEMENT (SHEET 1 OF 3)
2.5-117	COMPOSITE FOUNDATION MAT SETTLEMENT (SHEET 2 OF 3)
2.5-117	COMPOSITE FOUNDATION MAT SETTLEMENT (SHEET 3 OF 3)
2.5-118	COMPOSITE FOUNDATION MAT DIFFERENTIAL SETTLEMENT CONTOURS
2.5A-1	GRAIN SIZE ANALYSES
2.5A-2	GRAIN SIZE ANALYSES
2.5A-3	GRAIN SIZE ANALYSES
2.5A-4	GRAIN SIZE ANALYSES
2.5A-5	GRAIN SIZE ANALYSES
2.5A-6	GRAIN SIZE ANALYSES
2.5A-7	GRAIN SIZE ANALYSES
2.5A-8	GRAIN SIZE ANALYSES
2.5A-9	GRAIN SIZE ANALYSES
2.5A-10	GRAIN SIZE ANALYSES
2.5A-11	GRAIN SIZE ANALYSES
2.5A-12	GRAIN SIZE ANALYSES



WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-13	GRAIN SIZE ANALYSES
2.5A-14	GRAIN SIZE ANALYSES
2.5A-15	GRAIN SIZE ANALYSES
2.5A-16	GRAIN SIZE ANALYSES
2.5A-17	GRAIN SIZE ANALYSES
2.5A-18	GRAIN SIZE ANALYSES
2.5A-19	GRAIN SIZE ANALYSES
2.5A-20	GRAIN SIZE ANALYSES
2.5A-21	GRAIN SIZE ANALYSES
2.5A-22	GRAIN SIZE ANALYSES
2.5A-23	GRAIN SIZE ANALYSES
2.5A-24	GRAIN SIZE ANALYSES
2.5A-25	GRAIN SIZE ANALYSES
2.5A-26	GRAIN SIZE ANALYSES
2.5A-27	GRAIN SIZE ANALYSES
2.5A-28	GRAIN SIZE ANALYSES
2.5A-29	GRAIN SIZE ANALYSES
2.5A-30	GRAIN SIZE ANALYSES
2.5A-31	GRAIN SIZE ANALYSES
2.5A-32	GRAIN SIZE ANALYSES
2.5A-33	GRAIN SIZE ANALYSES
2.5A-34	GRAIN SIZE ANALYSES
2.5A-35	GRAIN SIZE ANALYSES
2.5A-36	GRAIN SIZE ANALYSES

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-37	GRAIN SIZE ANALYSES
2.5A-38	GRAIN SIZE ANALYSES
2.5A-39	GRAIN SIZE ANALYSES
2.5A-40	GRAIN SIZE ANALYSES
2.5A-41	GRAIN SIZE ANALYSES
2.5A-42	GRAIN SIZE ANALYSES
2.5A-43	GRAIN SIZE ANALYSES
2.5A-44	GRAIN SIZE ANALYSES
2.5A-45	GRAIN SIZE ANALYSES
2.5A-46	GRAIN SIZE ANALYSES
2.5A-47	GRAIN SIZE ANALYSES
2.5A-48	GRAIN SIZE ANALYSES
2.5A-49	GRAIN SIZE ANALYSES
2.5A-50	GRAIN SIZE ANALYSES
2.5A-51	GRAIN SIZE ANALYSES
2.5A-52	GRAIN SIZE ANALYSES
2.5A-53	GRAIN SIZE ANALYSES
2.5A-54	GRAIN SIZE ANALYSES
2.5A-55	GRAIN SIZE ANALYSES
2.5A-56	GRAIN SIZE ANALYSES
2.5A-57	GRAIN SIZE ANALYSES
2.5A-58	GRAIN SIZE ANALYSES
2.5A-59	GRAIN SIZE ANALYSES
2.5A-60	GRAIN SIZE ANALYSES

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-61	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-62	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-63	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-64	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-65	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-66	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-67	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-68	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-69	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-70	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-71	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-72	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-73	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-74	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-75	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-76	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-77	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-78	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-79	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-80	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-81	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-82	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-83	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-84	UNCONSOLIDATED UNDRAINED STRENGTH TESTS

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-85	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-86	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-87	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-88	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-89	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-90	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-91	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-92	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-93	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-94	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-95	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-96	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-97	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-98	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-99	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-100	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-101	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-102	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-103	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-104	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-105	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-106	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-107	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-108	UNCONSOLIDATED UNDRAINED STRENGTH TESTS

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-109	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-110	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-111	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-112	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-113	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-114	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-115	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-116	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-117	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-118	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-119	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-120	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-121	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-122	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-123	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-124	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-125	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-126	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-127	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-128	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-129	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-130	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-131	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-132	UNCONSOLIDATED UNDRAINED STRENGTH TESTS

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-133	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-134	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-135	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-136	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-137	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-138	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-139	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-140	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-141	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-142	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-143	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-144	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-145	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-146	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-147	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-148	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-149	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-150	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-151	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-152	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-153	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-154	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-155	UNCONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-156	UNCONSOLIDATED UNDRAINED STRENGTH TESTS

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-157	CONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-158	CONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-159	CONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-160	CONSOLIDATED UNDRAINED STRENGTH TESTS
2.5A-161	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-162	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-163	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-164	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-165	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-166	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-167	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-168	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-169	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-170	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-171	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-172	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-173	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-174	CONSOLIDATION TESTS GRADE TO -40 FT. MSL (RECENT MATERIAL)
2.5A-175	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-176	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-177	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-178	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-179	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-180	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-181	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-182	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-183	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-184	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-185	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-186	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-187	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-188	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-189	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-190	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-191	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-192	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-193	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-194	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-195	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-196	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-197	CONSOLIDATION TESTS -40 FT. MSL TO -77 FT. MSL
2.5A-198	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-199	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-200	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-201	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-202	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-203	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-204	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL



WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-205	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-206	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-207	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-208	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-209	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-210	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-211	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-212	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-213	CONSOLIDATION TESTS -92 FT. MSL TO -108 FT. MSL
2.5A-214	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-215	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-216	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-217	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-218	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-219	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-220	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-221	CONSOLIDATION TESTS -108 FT. MSL TO -116 FT. MSL
2.5A-222	CONSOLIDATION TESTS -116 FT. MSL TO -127 FT. MSL
2.5A-223	CONSOLIDATION TESTS -116 FT. MSL TO -127 FT. MSL
2.5A-224	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-225	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-226	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-227	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-228	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL

WSES-FSAR-UNIT-3

CHAPTER 2

LIST OF FIGURES (Cont'd)

Figure	Title
2.5A-229	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-230	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-231	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-232	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-233	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-234	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-235	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-236	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-237	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-238	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-239	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-240	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-241	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-242	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-243	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-244	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-245	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-246	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL
2.5A-247	CONSOLIDATION TESTS -127 FT. MSL TO -317 FT. MSL

WSES-FSAR-UNIT-3  
UPDATE REFERENCE LIST

Chapter 2

<u>Section</u>	<u>Cross References</u>
<u>Revision 12-C</u>	
Table 2.2-4 Sheet 2	ER-W3-2000-0948-000/DRN 02-1834
Table 2.2-4 Sheet 3	
Table 2.2-4 Sheet 4	
Table 2.2-4 Sheet 6	
Table 2.2-4 Sheet 7	
Table 2.2-4 Sheet 8	
Table 2.2-4 Sheet 10	
Table 2.2-4 Sheet 11	
Table 2.2-4A	
Table 2.2-4B	
Table 2.2-3d (all 16 sheets)	
Table 2.2-5 (both pages)	
<u>Revision 14</u>	
Table Of Contents	ER-W3-2001-1149-000/DRN 03-2055
Section 2.1.1.3	
Section 2.1.3.4.1	
Section 2.2.3	
Section 2.2.3.1	
Section 2.2.3.1.4	
Section 2.3.4	
Section 2.4.3	
References 2.3	
Table 2.3-136	
Figure 2.3-48	
Section 2.2.3	ER-W3-2004-0276-000/DRN 05-149
Section 2.2.3.1.4	
Section 2.2.3.2	
Section 2.2.3.3.6	
Section 2.2.3.3.6	ER-W3-2004-0276-002/DRN 05-845
<u>Revision 15</u>	
Section 2.1.1.3	ER-W3-2006-0210-000/DRN 06-624
Section 2.2.3.1.3.2	ER-W3-2006-0281-000/DRN 06-869
Section 2.3.5.1	
Section 2.4.3.7	
Section 2.5.4.13.4	ER-W3-2006-0223-000/DRN 06-877
Section 2.2.3.1.3.1	ER-W3-2006-0223-000/DRN 06-905
Section 2.2.3.1.3.2	
Section 2.3.5.1	
Section 2.5.4.5.3.2	
Section 2.2A.1.3	ER-W3-2006-0296-000/DRN 06-926

WSES-FSAR-UNIT-3  
UPDATE REFERENCE LIST

Chapter 2

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

Revision 301

Section 2.3.2.1.5	EC-1837
Section 2.3.2.2	
Section 2.3.3.1.5	
Section 2.3.3.1.7	
Section 2.3.3.2	
Section 2.3: References	

Section 2.4.2.3.4	EC-5000082442 EC-2097
-------------------	--------------------------

Table of Contents	EC-5000082218
-------------------	---------------

Section 2.2.1  
Section 2.2.2.1.2  
Section 2.2.2.2  
Section 2.2.2.3  
Section 2.2.2.4  
Section 2.2.2.6  
Section 2.2.3  
Section 2.2.3.1.3.1.1  
Section 2.2.3.3  
Section 2.2.3.3.1  
Section 2.2.3.3.2  
Section 2.2.3.3.4  
Section 2.2.3.3.5  
Section 2.2.3.3.6  
Section 2.2.: References  
Table 2.2-3A  
Table 2.2-3B Sh. 1 of 8 thru Sh. 8 of 8  
Table 2.2-3C  
Table 2.2-3D Sh. 1 of 15 thru Sh. 15 of 15  
Table 2-23E Sh. 1 of 11 thru Sh. 11 of 11  
Table 2.2-3F Sh 1. of 4 thru Sh. 4 of 4  
Table 2.2-3G  
Table 2.2-4  
Table 2.2-4A  
Table 2.2-4B  
Table 2.2-5  
Table 2.2-6 Sh. 1 of 2 thru Sh. 2 of 2  
Table 2.2-7  
Figure 2.2-1  
Figure 2.2-2  
Figure 2.2-3  
Figure 2.2-3a  
Figure 2.2-3b  
Figure 2.2-3c  
Figure 2.2-3d  
Figure 2.2-3e

Revision 302

Section 2.4.2.2	LBDCR 2008-001
-----------------	----------------

<u>Section</u>	<u>Cross References</u>
<u>Revision 303</u>	
Section 2.4.11.5	EC-530
Section 2.4.11.6	
Section 2.3.3.1.2	EC-8688
<u>Revision 305</u>	
Section 2.4.1.1	EC-29230
Section 2.4.3.7	EC-30923
<u>Revision 306</u>	
Section 2.4.3.5.3	EC-32952
<u>Revision 307</u>	
Table of Contents	EC-38835
Table of Contents	EC-39014
Section 2.2.1	
Section 2.2.2.2	
Section 2.2.2.3	
Section 2.2.3.1.3.1.1	
Section 2.2.3.1.3.2	
Section 2.2: REFERENCES	
Table 2.2-3A	
Table 2.2-3B	
Table 2.2-3D	
Table 2.2-3E	
Table 2.2-3F	
Table 2.2-3G	
Table 2.2-5	
Table 2.2-6	
Figure 2.2-1	
Figure 2.2-3a	
Figure 2.2-3b	
Figure 2.2-3c	
Figure 2.2-3d	
Figure 2.2-3e	
Figure 2.2-3f	
Figure 2.2-3g	
Section 2.2.3.1	EC-40308
Section 2.2.3.3.5	EC-41671
Section 2.2.3.3.6	
Table 2.2-4A	
Section 2.4-10	EC-42115

Revision 308

Section 2.1.1.1	LBD CR 14-023
Section 2.4.10	EC 45161

Revision 309

Section 2.1.3.3	LBD CR 15-005
Table 2.1-4	
Table 2.1-7	

Figure 2.1-4	LBD CR 15-040
Figure 2.1-4a	
Figure 2.1-3	
Figure 2.2A-1	
Figure 2.3-29	
Figure 2.3-47	
Figure 2.4-1	

Table of Contents	LBD CR 15-048
Section 2.2.1	
Section 2.2.2	
Section 2.2 References	
Table 2.2-1 Sh. 1 & 3	
Table 2.2-3A	
Table 2.2-3B sh. 1-20	
Table 2.2-3D sh. 1-14	
Table 2.2-3E sh. 1-3	
Table 2.2-3F sh. 1-4	
Table 2.2-3G	
Table 2.2-5 Sh. 1-2	
Table 2.2-6 Sh. 1-4	
Figure 2.2-1	
Figure 2.2-3a	
Figure 2.2-3d	
Figure 2.2-3f	

Section 2.4.1.1	LBD CR 15-026
Section 2.4.2.1	
Section 2.4.2.2	
Section 2.4.3.1	
Section 2.4.3.5	
Section 2.4.3.5.3	
Section 2.4.3.7	
Section 2.4.3.8	
Section 2.4.4	
Section 2.4.5.1	
Section 2.4.5.2	
Section 2.4.5.3	
Section 2.4.7	
Section 2.4.9	
Section 2.4.10	
Section 2.4.11.5	
Section 2.4.12	
Section 2.4.13.1.2	
Section 2.4.13.1.3	
Section 2.4.13.2.1	
Section 2.4.13.2.3	
Section 2.4.13.3	