CHAPTER 2, ENVIRONMENTAL DESCRIPTION

LIST OF TABLES

Number	Title
2.2-1	Site and Vicinity Land Use Acreage
2.2-2	Major Land Use along Existing Transmission Corridors
2.2-3	Proposed Upgrade to the Existing Transmission System
2.2-4	Major Land Use in Potential Corridors for New Transmission Lines
2.2-5	Land Use in Fairfield County, 1997
2.3-1	Stream Flow Gauging Stations
2.3-2	Mean Daily Flows on the Broad River at Richtex, South Carolina (Period of Data: 1925 to 1983)
2.3-3	Mean Daily Flows on the Broad River at Alston, South Carolina (Period of Data: 1980 to 2005)
2.3-4	Mean Daily Flows on the Broad River at Carlisle, South Carolina (Period of Data: 1938 to 2005)
2.3-5	Mean Monthly Flows on the Broad River at Richtex, South Carolina (Period of Data: 1925 to 1983)
2.3-6	Mean Monthly Flows on the Broad River at Alston, South Carolina (Period of Data: 1980 to 2005)
2.3-7	Mean Monthly Flows on the Broad River at Carlisle, SC from 1938 to 2005
2.3-8	Major Historic Floods and Peak flows in the Broad River near the Site
2.3-9	Flood Frequency Data for the Broad River at Parr Shoals Dam
2.3-10	N-Day Low Flow Values for Broad River at Parr Shoals Dam
2.3-11	Daily Average Water Temperature versus Depth Data at Monticello Reservoir Circulating Water Intake Station for Summer of 1994
2.3-12	Monthly Water Temperature Data versus Depth at Three Stations in Monticello Reservoir for Year 1995

List of Tables (Continued)

Number	Title
2.3-13	Monthly Water Temperature Data versus Depth at Three Stations in Monticello Reservoir for Year 1996
2.3-14	Monthly Water Temperature Data versus Depth at Three Stations in Monticello Reservoir for Year 2006
2.3-15	Sediment Data Availability
2.3-16	Total Suspended Solids and Daily Flows at Carlisle Station for B-046
2.3-17	Total Suspended Solids and Daily Flows at Carlisle Station for B-047
2.3-18	Gradation of Bed Materials in Parr Reservoir (January 2007 Sampling)
2.3-19	Observation Well Details
2.3-20	Monthly Groundwater Level Elevations
2.3-21	Slug Test Results
2.3-22	Packer Test Results
2.3-23	Summary of Laboratory Test Results for Grain Size, Moisture Content and Specific Gravity and Derived Porosity Values
2.3-24	Calculation of Median D50 Size of Saprolite
2.3-25	Hydraulic Gradient Calculation for Unit 2 and Unit 3
2.3-26	Groundwater Use by County (Millions of Gallons) in 50-Mile Radius, 2004
2.3-27	Surface Water Use by County (Millions of Gallons) 50-Mile Radius in 2004
2.3-28	Significant Downstream Surface Water Users
2.3-29	Mayo Creek Water Quality 2006
2.3-30	Surface Water Quality Data 2004
2.3-31	Surface Water Quality Data 2005

List of Tables (Continued)

Number	Title
2.3-32	Monticello Reservoir Water Quality 2006
2.3-33	Groundwater Quality Data for Unit 1 Construction
2.3-34	Jenkinsville Water Wells Water Quality Data for 2004
2.3-35	Units 2 and 3 Site Evaluation Groundwater Quality Analysis 2006
2.3-36	Water Quality Monitoring
2.4-1	Protected Species in Fairfield County and in Counties Crossed by Existing Transmission Lines
2.4-2	Protected Species in Counties Crossed by Proposed Transmission Lines
2.4-3	Avian Species Recorded During Surveys at the VCSNS Site
2.4-4	Aquatic and Wetland Plants Observed at Parr Reservoir in 2008
2.4-5	Rapid Bioassessment Metrics Calculated for the Three Sampling Stations on Mayo Creek, Fairfield County, South Carolina, 18 July 2008
2.4-6	Dominant Taxa (>5% of the Collection) for the Three Sampling Stations on Mayo Creek, Fairfield County, South Carolina, 18 July 2008
2.5-1	Current Populations and Projections to 2060
2.5-2	Counties within 50 Miles of the Proposed Site
2.5-3	Annual Average Population Change
2.5-4	Age Distribution of Population in 2000 for the Four Counties and State of South Carolina
2.5-5	Municipalities within a 50-Mile Radius
2.5-6	Population Density
2.5-7	Farms that Employ Migrant Labor in the 50-Mile Region
2.5-8	Employment Sectors in the Four-County Region

List of Tables (Continued)

Number	Title
2.5-9	Top 10 Nonfederal Employers Located in the Central Midlands Region
2.5-10	Employment Trends 1995–2005
2.5-11	Per Capita Personal Income in the Four-County Region
2.5-12	Average Annual Daily Traffic Counts for 2005
2.5-13	Characteristics of Unrestricted, Public Airports within 50 Miles of VCSNS
2.5-14	Property Taxes Revenues for the Four-County Region
2.5-15	Recreation Areas within 50 Miles of VCSNS
2.5-16	Housing Characteristics in the Four-County Region for 2000
2.5-17	Housing Characteristics of Select Municipalities within 50 miles of VCSNS
2.5-18	State-Regulated Public Water Systems in the Four-County Region
2.5-19	State-Regulated Public Wastewater Systems in the Four-County Region
2.5-20	Police and Fire Protection in the Four-County Region
2.5-21	Hospitals and Medical Personnel in the Four-County Region
2.5-22	Schools and Enrollment in the Four-County Region, 2005-2006
2.5-23	Colleges and Universities within 50 miles
2.5-24	National Register Listed Archaeological Sites and Standing Structures within 10 Miles of the Site
2.5-25	Standing Structures Determined Individually Eligible or Contributing to the Eligibility of a District within 10 Miles of the Site
2.5-26	Summary of Minority and Low-Income Block Groups within 50 Miles of Units 2 and 3
2.7-1	NWS and Cooperative Observing Stations Near the Site for Units 2 and 3

List of Tables (Continued)

Number	Title
2.7-2	Local Climatological Data Summary for Columbia, South Carolina
2.7-3	Climatological Normals (Means) at Selected NWS and Cooperative Observing Stations in the Unit 2 and 3 Site Area
2.7-4	Morning and Afternoon Mixing Heights, Wind Speeds, and Ventilation Indices for the VCSNS Site Area
2.7-5	Climatological Extremes at Selected NWS and Cooperative Observing Stations in the Units 2 and 3 Site Area
2.7-6	Seasonal and Annual Mean Wind Speeds for the Units 2 and 3 Monitoring Program (January 1, 2007–December 31, 2007) and the Columbia, South Carolina, NWS Station
2.7-7	Wind Direction Persistence/Wind Speed Distributions for the Units 2 and 3 Monitoring Program – 10-Meter Level
2.7-8	Wind Direction Persistence/Wind Speed Distributions for the Units 2 and 3 Monitoring Program – 60-Meter Level
2.7-9	Seasonal and Annual Vertical Stability Class and Mean 10-Meter Level Wind Speed Distributions for the Units 2 and 3 Monitoring Program (January 1, 2007–December 31, 2007)
2.7-10	Joint Frequency Distribution of Wind Speed and Wind Direction (10-Meter Level) by Atmospheric Stability Class for the Units 2 and 3 Monitoring Program (January 1, 2007–December 31, 2007)
2.7-11	Joint Frequency Distribution of Wind Speed and Wind Direction (60-Meter Level) by Atmospheric Stability Class for the Units 2 and 3 Monitoring Program (January 1, 2007–December 31, 2007)
2.7-12	Sector-Specific Downwind Distances Between the PBA Circle and LPZ Boundary
2.7-13	PAVAN Output — Bounding 50 Percentile X/Q Value at the Dose Evaluation Periphery (Building Wake Credit Not Included)
2.7-14	PAVAN Output — Bounding 50 Percentile X/Q Value at the LPZ Boundary (Building Wake Credit Not Included)
2.7-15	Shortest Distances Between the Units 2 and 3 PBA Circle and Receptors of Interest by Downwind Direction Sector

List of Tables (Continued)

Number	Title
2.7-16	XOQDOQ-Predicted Maximum X/Q and D/Q Values at Receptors of Interest
2.7-17	XOQDOQ-Predicted Maximum Annual Average X/Q and D/Q Values at the Standard Radial Distances and Distance-Segment Boundaries
2.7-18	Long-Term Average X/Q and D/Q Values for Routine Releases at Specific Receptors of Interest
2.7-19	Long-Term Average X/Q Values (sec/m^3) for Routine Releases at Distances Between 0.25 and 50 Miles, No Decay, Undepleted
2.7-20	Long-Term Average X/Q Values (sec/m^3) for Routine Releases at the Standard Distance Segments Between 0.5 and 50 Miles, No Decay, Undepleted
2.7-21	Long-Term Average X/Q Values (sec/m^3) for Routine Releases at Distances Between 0.25 and 50 Miles, 2.26-Day Decay, Undepleted
2.7-22	Long-Term Average X/Q Values (sec/m^3) for Routine Releases at the Standard Distance Segments Between 0.5 and 50 Miles, 2.26-Day Decay, Undepleted
2.7-23	Long-Term Average X/Q Values (sec/m^3) for Routine Releases at Distances Between 0.25 and 50 Miles, 8.00-Day Decay, Depleted
2.7-24	Long-Term Average X/Q Values (sec/m^3) for Routine Releases at the Standard Distance Segments Between 0.5 and 50 Miles, 8.00-Day Decay, Depleted
2.7-25	Long-Term Average D/Q Values (1/m^2) for Routine Releases at Distances Between 0.25 and 50 Miles
2.7-26	Long-Term Average D/Q Values (1/m^2) for Routine Releases at the Standard Distance Segments Between 0.5 and 50 Miles
2.9-1	Plant Parameters for Unit 1