

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

	<u>Page No.</u>
TABLE OF CONTENTS	
EXECUTIVE SUMMARY	ES-1
PROJECT BACKGROUND	ES-1
PROPOSED ACTION	ES-1
PUBLIC OUTREACH AND COMMENTS	ES-2
ENVIRONMENTAL IMPACTS AND MITIGATION	ES-3
ALTERNATIVES CONSIDERED	ES-7
CONCLUSION	ES-8
1.0 INTRODUCTION	1-1
1.1 PROJECT PURPOSE AND NEED.....	1-2
1.2 PURPOSE AND SCOPE OF THIS STATEMENT	1-3
1.3 PERMITS, APPROVALS, AND REGULATORY REQUIREMENTS	1-3
1.4 PUBLIC REVIEW AND COMMENT.....	1-7
1.5 NONJURISDICTIONAL FACILITIES	1-10
2.0 DESCRIPTION OF THE PROPOSED ACTION	2-1
2.1 PROPOSED FACILITIES.....	2-1
2.1.1 Pipeline Facilities: Fayetteville and Greenville Laterals	2-1
2.1.2 Aboveground Facilities.....	2-4
2.2 LAND REQUIREMENTS	2-7
2.2.1 Pipeline Facilities.....	2-7
2.2.1.1 Rights-of-Way and Temporary Workspaces	2-7
2.2.1.2 Access Roads.....	2-8
2.2.1.3 Pipe Storage/Contractor Yards	2-9
2.2.2 Aboveground Facilities.....	2-9
2.3 CONSTRUCTION SCHEDULE.....	2-11
2.4 ENVIRONMENTAL COMPLIANCE AND MITIGATION MONITORING.....	2-11
2.5 CONSTRUCTION PROCEDURES	2-14
2.5.1 Pipeline Facilities.....	2-14
2.5.1.1 General Pipeline Construction Techniques	2-14
2.5.1.2 Special Construction Techniques	2-19
2.5.2 Aboveground Facilities.....	2-29
2.6 OPERATION AND MAINTENANCE PROCEDURES	2-29
2.6.1 Pipeline Facilities.....	2-29
2.6.2 Compressor Station and Other Aboveground Facilities	2-30
2.7 SAFETY CONTROLS	2-30
2.7.1 Pipeline	2-30
2.7.1.1 Cathodic Protection	2-30
2.7.1.2 Emergency Response Procedures	2-31
2.8 FUTURE PLANS AND ABANDONMENT	2-31
3.0 ALTERNATIVES	3-1
3.1 NO-ACTION OR POSTPONED-ACTION ALTERNATIVE.....	3-1
3.2 PIPELINE SYSTEM ALTERNATIVES	3-3
3.2.1 Existing Pipeline Systems.....	3-3
3.2.2 Other Proposed Pipeline Systems	3-4

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

		<u>Page No.</u>
3.3	PIPELINE ROUTE ALTERNATIVES AND VARIATIONS	3-6
3.3.1	Alternatives.....	3-7
3.3.2	Variations Reviewed During Pre-filing	3-13
3.3.3	Agency-Proposed Alternatives	3-15
3.3.4	Agency-Proposed Route Variations.....	3-20
3.4	ABOVEGROUND FACILITY ALTERNATIVES.....	3-31
4.0	ENVIRONMENTAL ANALYSIS	4-1
4.1	GEOLOGIC RESOURCES	4-1
4.1.1	Geologic Setting	4-1
4.1.2	Mineral Resources	4-2
4.1.3	Geologic Hazards.....	4-3
4.1.3.1	Seismic Hazards	4-3
4.1.3.2	Active Faults.....	4-4
4.1.3.3	Soil Liquefaction	4-10
4.1.3.4	Karst Potential/Ground Subsidence.....	4-11
4.1.3.5	Bedrock and Blasting.....	4-12
4.1.3.6	Slope Failures/Landslides.....	4-15
4.1.3.7	Paleontological Resources	4-16
4.2	SOILS	4-17
4.2.1	Soil Types and Characteristics.....	4-17
4.2.2	Potential Impacts and Mitigation.....	4-18
4.2.2.1	Prime Farmland	4-18
4.2.2.2	Hydric Soils	4-19
4.2.2.3	Compaction Potential	4-19
4.2.2.4	Soil Erosion - Highly Erodible Soils	4-20
4.2.2.5	Revegetation Potential.....	4-21
4.2.2.6	Drainage Systems and Drainage Patterns	4-21
4.2.2.7	Rocks	4-22
4.2.2.8	Soil Contamination	4-22
4.3	WATER RESOURCES	4-22
4.3.1	Groundwater	4-22
4.3.1.1	Pipeline Facilities	4-25
4.3.2	Surface Water	4-26
4.3.2.1	Pipeline Facilities	4-28
4.3.2.2	Operational Impacts.....	4-35
4.4	WETLANDS	4-36
4.4.1	Affected Wetlands	4-38
4.4.1.1	Pipeline Facilities	4-38
4.4.2	Wetland Restoration and Compensatory Mitigation.....	4-47
4.5	VEGETATION	4-48
4.5.1	Habitat/Community Types.....	4-48
4.5.1.1	Typical Habitat/Community Types in the Project Area	4-49
4.5.1.2	Pipeline Facilities	4-50
4.5.2	Vegetative Communities of Special Concern	4-52
4.5.3	Noxious Weeds and Other Invasive Plants.....	4-54
4.6	WILDLIFE AND AQUATIC RESOURCES	4-54
4.6.1	Wildlife Resources.....	4-55
4.6.1.1	Wildlife Habitats in the Project Area	4-55
4.6.1.2	Impacts and Mitigation.....	4-56

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

		<u>Page No.</u>
	4.6.1.3 Migratory Birds and Colonial Nesting Waterbirds.....	4-57
	4.6.1.4 Managed Wildlife Areas.....	4-58
4.6.2	4.6.2 Aquatic Resources	4-59
	4.6.2.1 Freshwater Fish and Invertebrates	4-60
	4.6.2.2 Commercial and Recreational Fisheries	4-62
	4.6.2.3 Construction Impacts on Aquatic Resources	4-62
	4.6.2.4 Post-Construction and Operational Impacts on Aquatic Resources	4-64
4.7	4.7 THREATENED, ENDANGERED, AND OTHER SPECIAL STATUS SPECIES	4-64
	4.7.1 Federally Listed Threatened and Endangered Species	4-64
	4.7.1.1 Mammals	4-66
	4.7.1.2 Birds	4-66
	4.7.1.3 Fish	4-68
	4.7.1.4 Mussels	4-68
	4.7.1.5 Insects	4-69
	4.7.1.6 Plants	4-70
	4.7.2 Candidate for Federal Listing	4-70
	4.7.3 Federally Managed Species	4-70
	4.7.4 State-Listed Threatened and Endangered Species	4-71
	4.7.5 Conclusions and Recommendations	4-73
4.8	4.8 LAND USE, RECREATION, AND VISUAL RESOURCES	4-73
	4.8.1 General Land Use Types.....	4-73
	4.8.1.1 Pipeline Rights-of-Way	4-73
	4.8.1.2 Use of Existing Rights-of-Way	4-86
	4.8.1.3 Additional Temporary Work Spaces	4-88
	4.8.1.4 Aboveground Facilities.....	4-88
	4.8.1.5 Pipe Storage and Contractor Yards	4-88
	4.8.1.6 Access Roads.....	4-88
	4.8.1.7 Pipeline Easements	4-90
	4.8.2 Planned Residential and Commercial/Industrial Developments.....	4-91
	4.8.3 Recreation and Special Land Uses.....	4-91
	4.8.4 Visual Resources.....	4-95
	4.8.5 Hazardous Waste	4-97
	4.8.6 Geodetic Survey Monuments.....	4-97
4.9	4.9 SOCIOECONOMICS	4-98
	4.9.1 Region of Influence	4-98
	4.9.2 Population	4-98
	4.9.3 Employment and Economy.....	4-99
	4.9.4 Local Taxes and Government Revenue	4-101
	4.9.4.1 Sales and Use Taxes	4-101
	4.9.4.2 Special Contractor Tax	4-101
	4.9.4.3 Property Tax Revenues.....	4-101
	4.9.4.4 Impacts on Government Revenues	4-103
	4.9.5 Housing.....	4-103
	4.9.6 Public Services.....	4-105
	4.9.7 Transportation/Traffic Impacts	4-106
	4.9.8 Property Values.....	4-107
	4.9.9 Environmental Justice	4-107
4.10	4.10 CULTURAL RESOURCES	4-110
	4.10.1 Cultural Resource Surveys.....	4-111

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

	<u>Page No.</u>
4.10.2 Unanticipated Discoveries Plan	4-112
4.10.3 Native American Consultation.....	4-112
4.10.4 Compliance with the NHPA	4-113
4.11 AIR QUALITY AND NOISE	4-114
4.11.1 Air Quality	4-114
4.11.1.1 Existing Air Quality	4-114
4.11.1.2 Regulatory Requirements	4-116
4.11.1.3 Air Quality Impacts and Mitigation.....	4-121
4.11.2 Noise	4-123
4.11.2.1 Regulatory Requirements	4-124
4.11.2.2 Existing Noise Levels.....	4-124
4.11.2.3 General Impacts and Mitigation	4-124
4.12 CUMULATIVE IMPACTS	4-126
4.12.1 Planned Pipeline Projects in the Vicinity of the Project Area	4-127
4.12.2 Other Projects and Activities	4-128
4.12.3 Potential Cumulative Impacts of the Proposed Action	4-130
4.12.3.1 Geology and Soils.....	4-130
4.12.3.2 Water Resources and Wetlands	4-131
4.12.3.3 Vegetation and Wildlife.....	4-132
4.12.3.4 Land Use, Recreation, and Visual Resources	4-133
4.12.3.5 Air Quality and Noise.....	4-134
4.12.4 Conclusions.....	4-134
4.13 RELIABILITY AND SAFETY	4-134
4.13.1 Pipeline Facilities.....	4-134
4.13.1.1 Pipeline Safety Standards	4-135
4.13.1.2 Pipeline Accident Data	4-139
4.13.2 Impact on Public Safety	4-141
5.0 CONCLUSIONS AND RECOMMENDATIONS	5-1
5.1 SUMMARY OF THE STAFF'S ENVIRONMENTAL ANALYSIS	5-1
5.2 FERC STAFF'S RECOMMENDED MITIGATION.....	5-16

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

LIST OF APPENDICES

Appendix A	DISTRIBUTION LIST
Appendix B	PROPOSED FACILITIES AND ALTERNATIVES MAPS
Appendix C	TABLES OF POTENTIALLY AFFECTED RESOURCES
Appendix D	SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN AND EROSION AND SEDIMENT CONTROL PLANS AND STORM WATER POLLUTION PREVENTION PLANS FOR ARKANSAS AND MISSISSIPPI
Appendix E	EXOTIC AND INVASIVE SPECIES CONTROL PLAN
Appendix F	NATCHEZ TRACE PARKWAY
Appendix G	COMMENTS ON THE DRAFT EIS AND RESPONSES
Appendix H	LIST OF PREPARERS
Appendix I	REFERENCES
Appendix J	SUBJECT INDEX

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

	<u>Page No.</u>
LIST OF FIGURES	
Figure 2.1-1	General Location Map
Figure 2.2.1-1	Typical 36-Inch-Diameter Pipeline Construction Right-of-Way Cross Section without Topsoil Segregation.....
Figure 2.5.1-1	Typical Upland Pipeline Construction Sequence
Figure 2.5.1-2	Typical Waterbody Crossing
Figure 2.5.1-3	Waterbody Crossing Flume Method.....
Figure 2.5.1-4	Typical HDD Waterbody Crossing
Figure 2.5.1-5	Typical Saturated Wetland Crossing
Figure 3.2-1	Fayetteville Lateral Project Area Pipeline Systems and Route Alternatives
Figure 3.3-1	Greenville Lateral and Alternative Routes
Figure 4.1.3-1	Seismic Source Zones and Known Earthquake Epicenters, Fayetteville Lateral
Figure 4.1.3-2	Seismic Source Zones and Known Earthquake Epicenters, Greenville Lateral
Figure 4.1.3-3	Peak Ground Acceleration with 10 Percent Probability of Exceedance in 50 Years, Fayetteville Lateral.....
Figure 4.1.3-4	Peak Ground Acceleration with 10 Percent Probability of Exceedance in 50 Years, Greenville Lateral.....
Figure 4.1.3-5	Seismic Hazard Zones, Greenville and Fayetteville Lateral.....
Figure 4.1.3-6	Shallow Bedrock, Fayetteville Lateral
Figure 4.1.3-7	Shallow Bedrock, Greenville Lateral
Figure 4.4-1	Proposed Crossing of Cache River (near Cache River NWR)
Figure 4.4-2	Proposed Crossing of Bayou DeView (Near Cache River NWR).....
Figure 4.8.1-1	Typical 36-Inch-Diameter Pipe Cross Section with Topsoil Segregation in Rice Fields
Figure 4.8.3-1	Managed Land and Special Use Areas in the Project Area
Figure 4.12.1-1	Approximate Location of Natural Gas Pipeline Projects Near the Proposed Fayetteville/Greenville Expansion Project

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Draft Environmental Impact Statement

TABLE OF CONTENTS

	<u>Page No.</u>
LIST OF TABLES	
Table 1.3-1	Major Permits, Approvals, and Consultations 1-4
Table 1.4-1	Issues Identified During the Public Scoping Process and in Comments on the Draft EIS 1-8
Table 2.1.1-1	Pipeline Facilities 2-3
Table 2.1.2-1	Aboveground Facilities 2-5
Table 2.2-1	Summary of Land Requirements 2-7
Table 2.2.1-1	Land Requirements for Rugged Terrain Crossings 2-9
Table 3.3.1-1	Comparison of Alternative A to the Corresponding Segment of the Proposed Fayetteville Lateral 3-10
Table 3.3.1-2	Comparison of Fayetteville Lateral to Alternative B 3-10
Table 3.3.1-3	Comparison of Greenville Lateral to Alternative C 3-11
Table 3.3.2-1	Route Variations Reviewed During Pre-filing: Fayetteville Lateral 3-13
Table 3.3.2-2	Route Variations Reviewed During Pre-filing: Greenville Lateral 3-16
Table 3.3.3-1	Comparison of the Agency-Proposed Route Alternatives to the Corresponding Segments of the Proposed Project 3-19
Table 3.3.4-1	Comparison of the Agency-Proposed Route Variations to the Corresponding Segments of the Proposed Fayetteville Lateral 3-21
Table 4.1.3-1	Range of Earthquake Intensities 4-4
Table 4.1.3-2	Earthquake Epicenters within 35 Miles of the Fayetteville Lateral and Greenville Lateral Routes 4-4
Table 4.1.3-3	Fault Zones within 100 Miles of the Fayetteville Lateral and Greenville Lateral Routes 4-10
Table 4.3.1-1	Private Water Supply Well Locations Within 150 feet of the Proposed Fayetteville Lateral Workspaces 4-24
Table 4.3.1-2	Private Water Supply Well Locations Within 150 feet of the Proposed Greenville Lateral Workspaces 4-24
Table 4.3.2-1	Watersheds within the Proposed Project Area 4-28
Table 4.3.2-2	Sensitive and Impaired Waterbodies 4-29
Table 4.3.2-3	Known Contaminated Sediments near the Proposed Project Area 4-31
Table 4.3.2-4	Major Waterbodies 4-32
Table 4.3.2-5	Hydrostatic Test Water Requirements for the Pipeline System 4-35
Table 4.4.1-1	Summary of Impacts to Wetland Communities 4-39
Table 4.4.1-2	Summary of Wetland Impacts on Forested and Scrub-shrub Communities within the Maintained Permanent Right-of-Way 4-45
Table 4.4.1-3	Wetlands Impacted by Additional Temporary Workspaces 4-46
Table 4.4.1-4	Wetlands Impacted by Access Roads 4-47
Table 4.7-1	Federally Listed Endangered or Threatened Species Potentially Occurring in the Project Area 4-65
Table 4.8.1-1	Summary of Land Uses Crossed by the Proposed Project 4-74
Table 4.8.1-2	Summary of Land Use Impacts Associated with Construction and Operation of the Proposed Pipelines 4-75
Table 4.8.1-3	Special Crops Crossed by Temporary and Permanent Rights-of-Way 4-78
Table 4.8.1-4	Commercial/Industrial Structures within 50 Feet of Construction Workspaces 4-83
Table 4.8.1-5	Residential Structures within 50 Feet of Construction Workspaces 4-84

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

	<u>Page No.</u>
Table 4.8.1-6	Summary of Collocated Rights-of-Way4-86
Table 4.8.1-7	Summary of Land Use Impacts Associated with Construction and Operation of Aboveground Facilities (in acres)4-89
Table 4.8.1-8	Pipe Yards and Contractor Yards Used for Construction4-90
Table 4.9.2-1	Population Summary for Counties Crossed by the Proposed Project4-98
Table 4.9.3-1	Economic and Employment Conditions4-100
Table 4.9.4-1	Estimated Property Tax Revenues4-102
Table 4.9.5-1	Existing Housing Conditions in Affected Counties (2000)4-104
Table 4.9.5-2	Existing Temporary Housing Conditions in Affected Counties4-104
Table 4.9.6-1	Existing Public Services and Facilities in Affected Counties4-105
Table 4.9.9-1	Race and Income Statistics in Affected Counties4-108
Table 4.11.1-1	National Ambient Air Quality Standards4-115
Table 4.11.1-2	Existing Ambient Air Quality Data4-115
Table 4.11.1-3	Compressor Station Operation Emission Source Information4-118
Table 4.11.1-4	Compressor Station Construction Emission Source Information4-121
Table 4.11.1-5	Project Impacts4-123
Table 4.11.2-1	Ambient Existing Noise at NSAs4-124
Table 4.11.2-2	Projected Noise Impact at NSAs for HDD Sites 23 and 254-125
Table 4.11.2-3	Noise Quality Analysis, Kosciusko Compressor Station4-126
Table 4.12-1	Existing or Proposed Activities or Projects in the Vicinity of the Fayetteville/Greenville Expansion Project4-127
Table 4.13.1-1	Class Locations by Milepost4-136
Table 4.13.1-2	High Consequence Areas4-138
Table 4.13.1-3	Natural Gas Service Incidents by Cause4-139
Table 4.13.1-4	Outside Forces Incidents by Cause (1970-1984)4-140
Table 4.13.1-5	External Corrosion by Level of Control (1970-1984)4-140
Table 4.13.2-1	Annual Average Fatalities - Natural Gas Transmission and Gathering Systems4-141
Table 4.13.2-2	Nationwide Accidental Deaths4-141

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
ADEQ	Arkansas Department of Environmental Quality
ADHHS	Arkansas Department of Health and Human Services (formerly Arkansas Department of Health)
AGC	Arkansas Geological Commission
AGFC	Arkansas Game and Fish Commission
AHPP	Arkansas Historic Preservation Program
ANHC	Arkansas Natural Heritage Commission
ANHP	Arkansas Natural Heritage Program
ANRC	Arkansas Natural Resources Commission
AOGC	Arkansas Oil and Gas Commission
ANR	ANR Pipeline Company
APCEC	Arkansas Pollution Control and Ecology Commission
APE	area of potential effect
API	American Petroleum Institute
AQCR	air quality control region
ARPA	Archaeological Resource Protection Act
ATWS	additional temporary workspace
ASME	American Society of Mechanical Engineers
AWS	American Welding Society
BA	biological assessment
BACT	best available control technology
bhp	brake horsepower
BMP	best management practices
BO	biological opinion
Btu	British thermal unit
C	centigrade
CAA	Clean Air Act
CAAA	Clean Air Act Amendment
CenterPoint	CenterPoint Energy
CEQ	Council on Environmental Quality
Certificate	Certificate of Public Convenience and Necessity
CFR	Code of Federal Regulations
CI	Chief Inspector
Cleaning Policy	Summary of Texas Gas Pipeline Cleaning Policy and Procedure
cm	centimeter
CO	carbon monoxide
CO ₂	carbon dioxide
Columbia Gulf Commission	Columbia Gulf Transmission Company
CREP	Federal Energy Regulatory Commission
CRP	Conservation Reserve Enhancement Program
CWA	Conservation Reserve Program
dBA	Clean Water Act
DOE	A-weighted decibel scale
	Department of Energy

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

DOI	Department of the Interior
DOT	U.S. Department of Transportation
EI	Environmental Inspector
EIA	Energy Information Administration
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
ESCP	Erosion and Sediment Control Plan
ESD	emergency shut down
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FSA	Farm Service Agency
FWS	U.S. Fish and Wildlife Service
GIS	geographic information system
Gulf South	Gulf South Pipeline Company, L.P.
HAP	Hazardous Air Pollutants
HCA	high consequence area
HDD	horizontal directional drilling
HDDCP	Horizontal Directional Drill Contingency Plan
hp	horsepower
IBWO	ivory-billed woodpecker
INGAA	Interstate Natural Gas Association of America
L _{dn}	day-night sound level
L _{eq(24)}	24-hour equivalent sound level
kPa	kilopascal
LEC	low emission combustion
LNG	liquefied natural gas
m ³	cubic meter
MAA	Managed Access Area
MACT	Maximum Achievable Control Technology
MDAH	Mississippi Department of Archives and History
MDEQ	Mississippi Department of Environmental Quality
Memorandum	Memorandum of Understanding on Natural Gas Transportation Facilities
MLRA	Major Land Resource Area
MLV	main line valve
MMcf/d	million cubic feet per day
MMI	Modified Mercalli Intensity
MMNS	Mississippi Museum of Natural Sciences
MP	milepost
MRT	Mississippi River Transmission
MSNHP	Mississippi Natural Heritage Program
M&R	metering and regulating
MSOGB	Mississippi State Oil and Gas Board
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

NESHAP	National Emission Standards for Hazardous Air Pollutants
NGA	Natural Gas Act
NGPL	Natural Gas Pipeline Company of America
NHPA	National Historic Preservation Act
NMHC	non-methane hydrocarbons
NNSR	nonattainment new source review
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NOAA	National Oceanographic and Atmospheric Administration
NOI	Notice of Intent to Prepare an Environmental Impact Statement for the Proposed Texas Gas Fayetteville/Greenville Expansion Project and Request for Comments on Environmental Issues and Notice of Public Scoping Meetings
NPDES	National Pollutant Discharge Elimination System
NPL	National Priorities List
NPS	U.S. National Park Service
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NRI	National Rivers Inventory
NSA	noise-sensitive area
NSPS	New Source Performance Standards
NSR	New Source Review
NWR	National Wildlife Refuge
O ₃	ozone
OEP	Office of Energy Projects
OPS	Office of Pipeline Safety
ORV	outstandingly remarkable value
Pb	lead
PCBs	polychlorinated biphenyls
PEM	palustrine emergent
PFO	palustrine forested
PHMSA	Pipeline and Hazardous Materials Safety Administration
Plan	Upland Erosion Control, Revegetation, and Maintenance Plan
PM _{2.5}	particulate matter less than less than 2.5 microns
PM ₁₀	particulate matter less than less than 10 microns
ppm	parts per million
Procedures	Wetland and Waterbody Construction and Mitigation Procedures
Project	Fayetteville/Greenville Expansion Project
PSD	prevention of significant deterioration
PSS	palustrine scrub shrub
PTE	potential to emit
RCRA	Resource Conservation and Recovery Act
RM	Richter Magnitude
ROW	right-of-way
SCADA	Supervisory Control and Data Acquisition
scf	standard cubic feet

TEXAS GAS FAYETTEVILLE/GREENVILLE EXPANSION PROJECT
Final Environmental Impact Statement

TABLE OF CONTENTS

LIST OF ACRONYMS AND ABBREVIATIONS

SHPO	State Historic Preservation Office
SI	spark ignition
SO ₂	sulfur dioxide
SO _x	sulfur oxides
Southern Natural	Southern Natural Gas Company
SPCC	Spill Prevention, Control, and Countermeasures
SQG	small quantity generator
Southwestern	Southwestern Energy Company
SSURGO	Soil Survey Geographic Database
STAA	Short-Term Activity Authorization
SWPPP	Storm Water Pollution Prevention Plan
Tcf	trillion cubic feet
Tennessee	Tennessee Gas Pipeline Company
Texas Eastern	Texas Eastern Transmission Company
Texas Gas	Texas Gas Transmission, LLC
tpy	tons per year
Trunkline	Trunkline Gas Company, LLC
TSP	total suspended particulates
USACE	U.S. Army Corps of Engineers
USC	United States Code
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey
UST	underground storage tank
VOC	volatile organic compound
WHPA	wellhead protection area
WMA	wildlife management area
WRP	Wetland Reserve Program