

# Table of Contents

Summary.....	i
Table of Contents.....	viii
List of Tables .....	ix
List of Figures.....	ix
List of Acronyms .....	x
Chapter 1 Introduction .....	1-1
1.1    Background.....	1-1
1.2    Purpose of and Need for the Supplement Analysis.....	1-1
1.3    Programmatic Issues and Mission Changes Since the SWEIS .....	1-3
1.3.1    Basis for Analysis in the SWEIS.....	1-3
1.3.2    Mission Changes Since the SWEIS.....	1-5
1.3.3    Key New or Modified Projects Since the SWEIS .....	1-6
1.4    Operating Basis.....	1-11
1.5    NEPA Activities Since the SWEIS.....	1-12
1.6    Analysis Methodology and SA Organization .....	1-13
Chapter 2 SWEIS Baseline and Impact Analysis, 1996–2001 .....	2-1
2.1    Resource Areas Not Evaluated in Detail.....	2-1
2.1.1    Visual Resources .....	2-1
2.1.2    Land Resources .....	2-1
2.1.3    Geology and Soils.....	2-2
2.1.4    Acoustics (Noise) .....	2-5
2.1.5    Biotic Resources.....	2-6
2.1.6    Socioeconomic Resources .....	2-8
2.1.7    Human Health.....	2-9
2.1.8    Transportation .....	2-13
2.1.9    Environmental Justice .....	2-14
2.1.10    Regulatory Requirements .....	2-15
2.2    Resource Areas Evaluated in Detail.....	2-18
2.2.1    Facilities and Infrastructure .....	2-18
2.2.2    Cultural Resources.....	2-20
2.2.3    Water Resources .....	2-22
2.2.4    Air Quality.....	2-27
2.2.5    Waste Management .....	2-28
2.2.6    Facility Accident Scenarios .....	2-32
Chapter 3 Potential Impacts Evaluation, 2002–2006.....	3-1
3.1    Facilities, Infrastructure, and Visual Resources.....	3-1
3.1.1    Facilities .....	3-1
3.1.2    Infrastructure .....	3-1
3.1.3    Visual Resources .....	3-1
3.2    Land Resources.....	3-2
3.3    Geology and Soils .....	3-2
3.4    Water Resources .....	3-2
3.5    Air Quality .....	3-3
3.6    Acoustics (Noise).....	3-3
3.7    Biotic Resources .....	3-4

3.8 Cultural Resources .....	3–4
3.9 Socioeconomic Resources .....	3–4
3.10 Waste Management.....	3–5
3.11 Human Health .....	3–6
3.12 Facility Risks .....	3–6
3.13 Transportation .....	3–7
3.14 Environmental Justice .....	3–7
3.15 Cumulative Impacts .....	3–8
3.15.1 Cumulative Impacts Identified in the SWEIS .....	3–8
3.15.2 Cumulative Impacts Evaluation .....	3–9
Chapter 4 Conclusions .....	4–1
Chapter 5 References .....	5–1

## List of Tables

Table 1–1. New or Modified Key Projects Initiated or Planned Since the SWEIS .....	1–8
Table 1–2. Weapons Work Since the SWEIS, Fiscal Years 1996–2006 .....	1–12
Table 2–1. Change in Number of Onsite Workers.....	2–9
Table 2–2. Annual Worker Doses, 1994 to 2000.....	2–10
Table 2–3. Comparison of Incidence Rates for Pantex Plant and Industry, National Averages.....	2–12
Table 2–4. Pantex Plant Average Rates Compared with Bureau of Labor Statistics Average Rates, 1990–2000 .....	2–12
Table 2–5. Pantex Plant Injury Rate Composite Statistical Summary, 1996–2001 .....	2–12
Table 2–6. Executive Orders Applicable to the Environment at the Pantex Plant.....	2–17
Table 2–7. DOE Environmental, Safety, and Health Regulations and Orders .....	2–18
Table 2–8. SWEIS Projected Utility Consumption and Capacities, 1996–2006 .....	2–19
Table 2–9. Pantex Plant Utility Consumption, 1996–2002.....	2–20
Table 2–10. SWEIS Waste Volume Generation, 1992–1995 .....	2–28
Table 2–11. SWEIS Environmental Restoration Waste Projections, 1997–2000.....	2–29
Table 2–12. SWEIS Annual Waste Projections for Weapons-Related Activities (Excluding Environmental Restoration Waste), 1997–2007 .....	2–29
Table 2–13. Annual Waste Generation for Operations and Environmental Restoration Activities, 1997–2000 .....	2–31
Table 2–14. Risk-Dominant Accident Scenarios .....	2–34

## List of Figures

Figure 1–1. Location of the Pantex Plant Site in the Texas Panhandle.....	1–2
Figure 1–2. Location of Key Areas at the Pantex Plant .....	1–4
Figure 1–3. Analysis Method .....	1–14

## List of Acronyms

BNA	block numbering area
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CEQ	Council on Environmental Quality
CWA	Clean Water Act
dBA	decibels A-weighted
D&D	decontamination and decommissioning
DCG	Derived Concentration Guide
DOE	U.S. Department of Energy
EID	<i>Environmental Information Document</i>
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
ER	environmental restoration
ESL	effects screening level
FS	firing site
FWS	U.S. Fish and Wildlife Service
GAL	Gas Analysis Laboratory
HE	high explosive(s)
HMX	high-melting explosive
HW	hazardous waste
HWTPF	Hazardous Waste Treatment and Processing Facility
LLMW	low-level mixed waste
LLW	low-level radioactive waste
MCAF	Materials Compatibility Assurance Facility
MCL	maximum contaminant level
MSA	metropolitan statistical area
MSGP	Multi-Sector General Permit
NAAQS	National Ambient Air Quality Standards
NDEF	Nondestructive Evaluation Facility
NEPA	National Environmental Policy Act
NHW	nonhazardous nonradioactive waste
NPDES	National Pollutant Discharge Elimination System
NTS	Nevada Test Site
OSHA	Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
PEIS	programmatic environmental impact statement
PID	<i>Programmatic Information Document</i>
PMU	Playa Management Unit
PQL	practical quantitation limit
RCRA	Resource Conservation and Recovery Act
RDX	research development explosive
RFI	RCRA Facility Investigations
ROD	Record of Decision
ROI	region of influence
RRS 2	risk reduction standard/Level 2
SA	supplement analysis
SGT	safeguards trailer
SHPO	State Historic Preservation Officer
SI	sealed insert

SIP	State Implementation Plan
SNM	special nuclear material
SNMCRF	Special Nuclear Material Component Requalification Facility
SSM PEIS	<i>Stockpile Stewardship and Management Programmatic Environmental Impact Statement</i>
SST	safe, secure transport
SVOC	semi-volatile organic compound
SWEIS	<i>Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components</i>
SWMU	solid waste management unit
TCE	trichloroethylene
TCEQ	Texas Commission on Environmental Quality
TNRCC	Texas Natural Resource Conservation Commission
TNT	trinitrotoluene
TRU	transuranic
TSD	DOE Transportation Safeguards Division
TTU	Texas Tech University
VOC	volatile organic compound
WETL	Weapons Evaluation Test Laboratory
WMA	waste management area
WWTF	Wastewater Treatment Facility