

## CONTENTS

*This is a summary table of contents.  
Each chapter is preceded by its individual detailed table of contents*

Table of Contents	Contents i
Acronyms and Abbreviations	Acronyms i
Glossary of Terms	Glossary i
List of Major Environmental Events and Legislation	Events i

### **CHAPTER 1 INTRODUCTION**

<b>A Overview</b>	<b>1A-1</b>
A.1 Purpose	1A-1
A.2 Background	1A-7
A.3 Site Assessment Sequencing	1A-22
A.4 Summary	1A-26
<b>B The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA)</b>	<b>1B-1</b>
B.1 Defining Hazardous Substances	1B-3
B.2 Notification of Contamination	1B-4
B.3 Superfund Response Process	1B-6
B.4 Superfund	1B-18.1
B.5 Liability and Exemptions	1B-19
B.6 Authority	1B-43
Do's and Don'ts	1B□-1
<b>C RCRA Corrective Action</b>	<b>1C-1</b>
C.1 Statutory Authority	1C-3
C.2 Entering a Facility into Corrective Action	1C-4
C.3 State Authorization	1C-5
C.4 Implementing Corrective Action	1C-6
C.5 RCRA Corrective Action Program Evolution	1C-14
Do's and Don'ts	1C□-1

<b>D Brownfields</b>	<b>1D-1</b>
D.1 CERCLA Brownfields	1D-2
D.2 Other Federal Brownfields Programs	1D-15
D.3 State and Tribal Brownfields Response Programs	1D-18
D.4 Environmental Justice	1D-20
D.5 Conclusion	1D-24

**CHAPTER 2  
DUE DILIGENCE AND ALL APPROPRIATE INQUIRY**

Introduction	2-1
1 All Appropriate Inquiries and ASTM Standards	2-5
2 Strict, Joint, Several, and Retroactive Liability	2-10
3 Parties Affected by CERCLA	2-10.1
4 Negotiating the Transfer of Problem Properties	2-13
Do's and Don'ts	2□-1

**CHAPTER 3  
PHASE I: ENVIRONMENTAL SITE ASSESSMENT**

Introduction	3-1
<b>A Conducting the Phase I ESA/AAI</b>	<b>3A-1</b>
A.1 Objectives and Performance Factors	3A-3
A.2 Delineation of AAI responsibilities	3A-7
A.3 Timeliness of AAI Information	3A-10
A.4 Records Review	3A-11
A.5 Visual Inspection/Site Reconnaissance	3A-27
A.6 Interviews	3A-42
A.7 Additional Inquiries	3A-47
A.8 AAI Final Report: Documentation of Environmental Conditions	3A-50
A.9 Non-Scope Considerations	3A-58
A.10 After Completion of the AAI/Phase I ESA	3A-59
Do's and Don'ts	3A□-1

---

<b>B. A Guide to Consultants Performing the Phase I ESA</b>	<b>3B-1</b>
B.1 Proposal Preparation	3B-2
B.2 The Contract	3B-5
B.3 Project Management	3B-10
B.4 The Final Report	3B-19
B.5 The Project Postmortem	3B-21
Do's and Don'ts	3B□-1
<b>CHAPTER 4</b>	
<b>PHASE II: SITE INVESTIGATION</b>	
Introduction	4-1
<b>A. Conducting the Phase II Site Investigation</b>	<b>4A-1</b>
A.1 Define the Site Boundary and Investigation Objectives	4A-4
A.2 Identifying Phase II Areas for Investigation	4A-15
A.3 Conceptual Model	4A-16
A.4 Development of an Analytical Program	4A-23
A.5 Field Procedures and Sample Collection Techniques	4A-37
A.6 Validating the Conceptual Model	4A-62
A.7 Interpreting Test Results	4A-63
A.8 The Site Investigation Report	4A-69
A.9 Post-Phase II SI Activities	4A-71
A.10 Release Reporting	4A-75
Do's and Dont's	4A□-1
<b>B. A Guide to Consultants Performing the Phase II SI</b>	<b>4B-1</b>
B.1 Proposal Preparation—Deciding Whether to Bid	4B-3
B.2 The Proposal	4B-6
B.3 The Contract	4B-8
B.4 Project Management	4B-15
B.5 The SI Report	4B-22
B.6 The Project Postmortem	4B-23
Do's and Don'ts	4B□-1

**CHAPTER 5  
PHASE III: SITE CHARACTERIZATION –  
SUPERFUND RI/FS AND RCRA RFI/CMS**

Introduction	5-1
<b>A. Superfund Remedial Investigation/Feasibility Study (RI/FS)</b>	<b>5A-1</b>
A.1 Scoping	5A-3
A.2 Site Characterization	5A-9
A.3 Development and Screening of Alternatives	5A-23
A.4 Treatability Studies	5A-39
A.5 Detailed Analysis of Alternatives	5A-39
A.6 RI/FS Communication and Reporting	5A-40
Do's and Don'ts	5A□-1
<b>B. RCRA Corrective Action: RCRA Facility Investigation and Corrective Measures Study (RFI/CMS)</b>	<b>5B-1</b>
B.1 Planning Flexible, Focused, Lean, Results-Based Corrective Action	5B-4
B.2 Site Characterization	5B-13
B.3 Corrective Measures Study	5B-17
B.4 RFI/CMS Communication and Reporting	5B-23
Do's and Don'ts	5B□-1

**CHAPTER 6  
CONSULTANT LIABILITIES**

<b>A. Nature of The Risk— Why are Environmental Assessments “Different”?</b>	<b>6-1</b>
<b>B. Risk Management Strategies</b>	<b>6-3</b>
B.1 Risk Avoidance	6-3
B.2 Risk Minimization	6-5
B.3 Transfer	6-11
<b>C. Special Problems</b>	<b>6-13</b>
C.1 Third-Party Reliance	6-13
C.2 Declaration and Certification	6-14
C.3 Disclosure of Hazardous Conditions	6-15
<b>D. Other Sources of Information</b>	<b>6-15</b>
Do's and Don'ts	6□-1

**CHAPTER 7  
EMINENT DOMAIN AND CONTAMINATED PROPERTIES**

1	The Power of Eminent Domain	7-2
2	Environmental Assessment in the Acquisition Process	7-7
3	Property Owner's Liability	7-17

**CHAPTER 8  
RADIOACTIVE MATERIALS IN THE ENVIRONMENTAL  
ASSESSMENT PROCESS: ANTICIPATING TENORM**

1	Introduction	8-1
2	The Mechanics of Radiation and Radioactivity	8-2
3	Exposure: Measuring Radioactivity and Dose	8-4
4	Background Radioactivity	8-5
5	Concentrating NORM—Generating TENORM	8-7
6	Addressing TENORM in the Environmental Assessment Process	8-14
7	Liability Considerations	8-21
	Do's and Don'ts	8□-1

**CHAPTER 9  
INSURANCE INDUSTRY'S LIABILITY FOR  
FINANCING SUPERFUND-MANDATED HAZARDOUS  
WASTE CLEANUP COSTS**

	Introduction	9-1
1	Cleanup Costs	9-3
2	Superfund	9-3
3	Insurance Industry Involvement	9-8
4	Insurance Coverage Litigation	9-13
5	Insurance Coverage Issues	9-15
6	Conclusion	9-49

**TABLES**

<b>Table 2-1</b>	EPA Regional Offices	Table 2-1	1
<b>Table 3A-1</b>	Cross-Reference Between the AAI Rule and ASTM E 2247-08	Table 3A-1	1
<b>Table 4A-1</b>	[Reserved]		
<b>Table 4A-2</b>	[Reserved]		
<b>Table 4A-3</b>	EPA Primary Drinking Water Regulations: Maximum Contaminant Levels (MCLs)	Table 4A-3	1
<b>Table 6</b>	State Cleanup Program Websites	Table 6	1

**APPENDICES**

<b>Appendix A</b>	[Reserved]
<b>Appendix B</b>	Checklist for Conducting AAI
<b>Appendix C</b>	Brownfields Tax Incentive Case Study
<b>Appendix D</b>	Methods of Investigation

**ONLINE RESOURCES**

**A Guide for Consultants Performing the RI/FS or RFI/CMS, including Do's and Don'ts**

Available at <http://resources.stpub.com>. For user name and password, please refer to your recent filing instructions.