

PROJECT GENERAL INFORMATION*

1	Project Name	
2	Project Manager's Name	
3	Unique Task Identifier	
4	Start Date	
5	End Date	
6	Quantity Total	
7	Unit of Measure in Contract	
8	Total Cost	
9	Location	

PROJECT SPECIFIC INFORMATION**

10	Security Requirements	
11	Site Conditions	
12	Contamination Type	
13	Protection Level	
14	Sub-Activity Identification	

* All parameters are essential and applies to all elements

** Essential parameter which generally applies to all elements of the project.

ECES Level 2 Units of Measure

Level 2	Environmental Management	Phase 1	Phase 2	Phase 3	Phase 4	Phase 5	Phase 6	Phase 8
1	PROGRAM MANAGEMENT, SUPPORT & INFRASTRUCTURE (Optional -Installation/Complex Wide Activities)							LS
2	PROJECT MANAGEMENT & SUPPORT (Operable Unit/Solid Waste Management Unit)	LS	LS	LS	LS	LS	LS	LS
3	PREPARATION OF PLANS	LS	LS	LS	LS	LS	LS	LS
4	STUDIES/DESIGN & DOCUMENTATION	LS	LS	LS	LS	LS	LS	
5	SITE WORK	LS	LS	LS	LS	LS	LS	LS
6	SURVEILLANCE & MAINTENANCE	LS	LS	LS	LS	LS	LS	LS
7	INVESTIGATIONS & MONITORING/SAMPLE COLLECTION	LS	LS	LS	LS	LS	LS	
8	SAMPLE ANALYSIS	LS	LS	LS	LS	LS	LS	
9	SAMPLE MANAGEMENT/DATA VALIDATION/DATA EVALUATION	LS	LS	LS	LS	LS	LS	
10	TREATABILITY/RESEARCH & DEVELOPMENT		LS	LS				
11	TREATMENT PLANT FACILITY/PROCESS				LS	LS		
12	STORAGE FACILITY/PROCESS				LS	LS	LS	
13	DISPOSAL FACILITY/PROCESS				LS	LS	LS	
14	ORDNANCE & EXPLOSIVES REMOVAL & DESTRUCTION (CWM is included in Treatment Plant/Facilities WBS X.11 & Technologies WBS X.20-X.30)				LS			
15	DRUMS/TANKS/STRUCTURES/MISC. & REMOVAL				LS		LS	
16	AIR POLLUTION/GAS COLLECTION & CONTROL				LS	LS	LS	
17	SURFACE WATER/SEDIMENTS CONTAINMENT, COLLECTION, OR CONTROL				LS	LS	LS	
18	GROUNDWATER CONTAINMENT, COLLECTION, OR CONTROL				LS	LS	LS	
19	SOLIDS/SOILS CONTAINMENT (e.g., CAPPING/BARRIER) COLLECTION, OR CONTROL				LS	LS	LS	
20	LIQUIDS WASTE/SLUDGES (e.g. UST/AST) COLLECTION AND CONTAINMENT				LS	LS		
21	IN SITU BIOLOGICAL TREATMENT				LS	LS		
22	EX SITU BIOLOGICAL TREATMENT				LS	LS		
23	IN SITU CHEMICAL TREATMENT				LS	LS		
24	EX SITU CHEMICAL TREATMENT				LS	LS		
25	IN SITU PHYSICAL TREATMENT				LS	LS	LS	
26	EX SITU PHYSICAL TREATMENT				LS	LS		
27	IN SITU THERMAL TREATMENT				LS	LS		
28	EX SITU THERMAL TREATMENT				LS	LS		
29	IN SITU STABILIZATION/FIXATION/ENCAPSULATION				LS	LS		
30	EX SITU STABILIZATION/FIXATION/ENCAPSULATION				LS	LS		
31	FACILITY DECOMMISSIONING & DISMANTLEMENT				LS	LS		
32	MATERIAL HANDLING/TRANSPORTATION	LS	LS	LS	LS	LS		
33	DISPOSAL	LS	LS	LS	LS	LS		
34	AIR-EMISSION AND OFF-GAS TREATMENT				LS	LS		
.9X	OTHER (Use Numbers 90-99)	LS	LS	LS	LS	LS	LS	LS

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.01		PROGRAM MANAGEMENT, SUPPORT & INFRASTRUCTURE (OPTIONAL- Applies to Contractors, Agencies, HQ/Major Command/Installation/Complex Wide Management & Manpower Activities Not Associated w/ Individual Projects)																				
.01	.01	Personnel Resources	8																			
.01	.02	Program Support	8																			
.01	.03	Program Infrastructure	8																			
.01	.04	Government Personnel Resources	8																			
.01	.05	Government - Program Support	8																			
.01	.06	Government Program Infrastructure	8																			
.01	.9X	Other	8																			
.02		PROJECT MANAGEMENT AND SUPPORT (Operable Unit/Solid Waste Management Unit)																				
.02	.01	Project Management/Support/Administration	1-6																			
.02	.02	Community Relations	1-6																			
.02	.03	Regulatory Interaction	1-6																			
.02	.04	Institutional Controls	1-8						1-8													
.02	.05	Post Design Support	3,4																			
.02	.06	Procurement - Equipment & Materials	2-5													2-5						
.02	.07	A/E Support	2-4																			
.02	.08	Contractor Construction Management	2-4																			
.02	.09	Government Construction Management	2-4																			
.02	.10	Independent Contractor Verification of Cleanup or Reuse	4-6												4-6							
.02	.11	Enforcement	1,2																			
.02	.12	Asset Recovery	1-6												1-6	1-6						
.02	.13	Configuration Management	1-6																			
.02	.14	Project Safety and Health	1-6																			
.02	.15	Contract Closeout	1-6																			
.02	.16	Realty Services	1-6																			
.02	.17	Regulatory Agency Oversight Staff												1-6								
.02	.18	Information Management	1-6																			
.02	.19	Litigation Support	1-6																			
.02	.20	Lessons Learned Management	1-6																			

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.02	.9X	Other	1-8																			
.03		PREPARATION OF PLANS																				
.03	.01	Workplan	1-6												1-6							
.03	.02	Chemical Data Acquisition Plan	1-7												1-6							
.03	.03	Sampling and Analysis Plan	1-8												1-6							
.03	.04	Health and Safety Plan	1-5,8												1-5, 8							
.03	.05	Pollution Control and Mitigation Plan	1-6												1-6							
.03	.06	Data Management Plan	1-5												1-5							
.03	.07	Community Relations Plan	1-6												1-6							
.03	.08	Transportation and Disposal Plan (Waste Mgt. Plan)	1-6												1-6							
.03	.09	Management Plan	1-5,8												1-5, 8							
.03	.10	Risk Assessment Plan	2,8												2, 8							
.03	.11	Technical Project Goals and Objectives	1-3																			
.03	.12	Submittals / Implementation Plans	1-5												1-5							
.03	.13	Emergency Response Plans / Report / Approval	1-4												1-4							
.03	.14	Environmental Workplans	1-4												1-4							
.03	.15	Decommissioning Plan	1-3												1-3							
.03	.16	Post RA/D&D Monitoring Plan	4-6												4-6							
.03	.17	Combined Workplan	1-6												1-6							
.03	.18	Proposed Plan	1-3																			
.03	.19	RCRA Permit Preparation/ Modification	3												3							
.03	.20	Environmental Action Implementation Plan	3-4												3-4							
.03	.21	Waste Site Work Permit	1-6												1-6							
.03	.22	Corrective Action Plan Reporting	1-6												1-6							
.03	.23	Material Disposition Plan	4-6												4-6							
.03	.9X	Other	1-8												1-8							
.04		STUDIES/DESIGN AND DOCUMENTATION																				
.04	.01	Hazardous, Toxic, or Radioactivity Ranking System	1-2												1-2							
.04	.02	Human Health Risk Assessment	1-2												1-2							
.04	.03	Ecological Risk Assessment	1-2												1-2							
.04	.04	Risk Assessment Documentation	1-2												1-2							
.04	.05	Remedial Investigation Report	1-2												1-2							

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE	17	18	19	20	21	22	23	24	25	26	27	28	29	Descriptive Parameters									
2	3	Environmental Management	Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost			
.04	.06	Develop Environmental Alternatives	2												2										
.04	.07	Screen Environmental Alternatives	2												2										
.04	.08	Evaluate Alternatives	2												2										
.04	.09	Refinement of Alternatives	2												2										
.04	.10	Document FS (CMS)	2												2										
.04	.11	Environmental Management Project Design	3,4												3, 4										
.04	.12	Decontamination/Dismantlement Project Design	3,4												3, 4										
.04	.13	Facility Design	3,4												3, 4										
.04	.14	Value Engineering/Special Studies	3, 4												3, 4										
.04	.15	Combined Report	1-6												1-6										
.04	.16	Engineering Evaluation/Cost Analysis	2-3												2-3										
.04	.17	Record of Decision	2-3												2-3										
.04	.18	Combined Feasibility Study Effort	2												2										
.04	.19	Post Construction Design Report	4												4										
.04	.20	Task Requirements and Criteria	3												3										
.04	.21	Submittals	3-4												3-4										
.04	.9X	Other	1-4																						
.05		SITE WORK																							
.05	.01	Mobilization	1-6			1-6									1-6	1-6									
.05	.02	Cleanup/Landscaping/Revegetation							1-6																
.05	.03	Clear and Grub							1-4							1-4									
.05	.04	Dismantling and Demolition (Non-Hazardous)		1-5					1-5	1-5					1-5	1-5									
.05	.05	Excavation and Earthwork		1-5						1-4						1-4	1-4								
.05	.06	Load and Haul				1-5				1-5							1-5								
.05	.07	Borrow Pit / Haul Roads		1-4		1-4			1-4	1-4								1-4							
.05	.08	Access Roads			1-4	1-4			1-4						5,6			1-4							
.05	.09	Arterial Roads/Divided Highways			1-4	1-4			1-4						5,6			1-6							
.05	.10	Diesel Generator												5,6	1-4						1-6				
.05	.11	Access Control Facility							1-4	1-4					5,6										
.05	.12	Railroad Tracks and Crossing				1-4								5,6											

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.05	.13	Bridges				1-4	1-4							5,6				1-6				
.05	.14	Fencing		1-4		1-4								5,6				1-6				
.05	.15	Parking Lots							1-4					5,6				1-6				
.05	.16	Retaining Wall		1-4		1-4	1-4		1-4					5,6				1-4				
.05	.17	Sidewalks							1-4					5,6				1-4				
.05	.18	Sprinkler System				1-4			1-4					5,6								
.05	.19	Structures/Culverts				1-4		1-4						5,6				1-6				
.05	.20	Gas Distribution Pipelines				1-4		1-4						5,6				1-6				1-4
.05	.21	Fuel Distribution Pipelines				1-4		1-4						5,6				1-6				1-4
.05	.22	Fuel Storage Tanks								1-4				5,6	1-6							
.05	.23	Heating/Cooling Distribution System				1-4		1-4						5,6								
.05	.24	Steam Distribution and Condensate Return Systems				1-4		1-4	1-4					5,6								
.05	.25	Treatment Plants/Lift Stations		1-4					1-4	1-6				5,6								1-4
.05	.26	Water Distribution				1-4		1-4						5,6								1-4
.05	.27	Water Storage Tanks								1-4				5,6	1-6							
.05	.28	Storm Sewer Systems				1-4		1-4						5,6				1-6				
.05	.29	Communications Systems				1-4								5,6								
.05	.30	Lighting				1-4			1-6					5,6	1-6							
.05	.31	Overhead Electrical Distribution		1-4		1-4								5,6								
.05	.32	Underground Electrical Distribution		1-4		1-4								5,6								
.05	.33	Sanitary Sewer Systems		1-4		1-4								5,6				1-6				
.05	.34	Restoration of Buildings after D&D		4-6					4-6	4-6					4-6							
.05	.35	Compressed Air/Nitrogen Systems				1-6				1-4				5,6				1-6				
.05	.36	Demobilization	2-6			2-6									2-6	2-6						
.05	.37	Population Relocation			1-8										1-8							1-8
.05	.38	Relocated Distribution Systems				1-4								5-6	1-6	1-6	1-6					
.05	.39	Steam Plant Facility								1-4				5-6							1-6	
.05	.40	Switch Gear Building								1-4				5-6							1-6	
.05	.41	Switch Gear Building for Important-To-Safety Systems								1-4				5-6							1-6	
.05	.51	General Requirements	1-6		1-6	1-6			1-6						1-6							

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.05	.52	Clean Sitework	1-6		1-6				1-6	1-6												
.05	.53	Concrete				1-6			1-6	1-6									1-6			
.05	.54	Masonry				1-6			1-6									1-6				
.05	.55	Metals				1-6			1-6		1-6				1-6							
.05	.56	Wood and Plastics	1-6			1-6			1-6													
.05	.57	Thermal and Moisture Protection							1-6									1-6				
.05	.58	Doors and Windows	1-6						1-6						1-6			1-6				
.05	.59	Finishes	1-6			1-6			1-6									1-6				
.05	.60	Specialties	1-6						1-6						1-6			1-6				
.05	.61	Specialized Building Equipment	1-6						1-6						1-6	1-6						
.05	.62	Furnishings	1-6						1-6						1-6			1-6				
.05	.63	Special Facilities Construction	1-6						1-6	1-6					1-6							
.05	.64	Conveying Systems		1-6		1-6									1-6							
.05	.65	Mechanical	1-6						1-6	1-6					1-6	1-6						
.05	.66	Electrical	1-6			1-6			1-6	1-6												
.05	.9X	Other	1-6																			
.06		SURVEILLANCE AND MAINTENANCE																				
.06	.01	Facility Transition	1-8												1-8							
.06	.02	Outdoor Surveillance and Maintenance							1-8					1-8		1-8						
.06	.03	Indoor Surveillance and Maintenance							1-8					1-8		1-8						
.06	.9X	Other	1-8																			
.07		INVESTIGATIONS AND MONITORING/SAMPLE COLLECTION																				
.07	.01	Site Reconnaissance	1-3						1-3							1-3						
.07	.02	Meteorological Monitoring		1-6											1-6	1-6						
.07	.03	Site Contaminant Surveys/Radiation Monitoring	1-6						1-6						1-6	1-6						
.07	.04	Hydrogeological Investigations - Groundwater		1-6					1-6						1-6	1-6						
.07	.05	Hydrogeological Investigations - Surface Water							1-6						1-6	1-6						
.07	.06	Geophysical/Geotechnical Investigation		1-6					1-6						1-6	1-6						
.07	.07	Ecological Investigation							1-6						1-6	1-6						
.07	.08	Air Monitoring and Sampling		1-6					1-6						1-6	1-6						

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.07	.09	Groundwater Sampling/Monitoring		1-6					1-6						1-6	1-6		1-6				
.07	.10	Surface Water Sampling		1-6					1-6						1-6	1-6						
.07	.11	Soil/Sediment Sampling		1-6					1-6						1-6	1-6						
.07	.12	Ecological Sampling							1-6						1-6	1-6						
.07	.13	Material/Waste Sampling													1-6	1-6						
.07	.14	Contaminated Building/Structures Samples							1-6						1-6	1-6						
.07	.15	Monitoring Well		1-6				1-6						5,6	1-4			1-6				
.07	.16	Site Specific Geographical Information System (GIS)							1-6						1-6							
.07	.17	Historical/Cultural/Archeological Investigation	1-6						1-6													
.07	.9X	Other	1-6																			
.08		SAMPLE ANALYSIS																				
.08	.01	Air / Gas Sample Analysis	1-6												1-6	1-6						1-6
.08	.02	Groundwater Sample Analysis	1-6												1-6	1-6						1-6
.08	.03	Surface Water Sample Analysis	1-6												1-6	1-6						1-6
.08	.04	Soil / Sediment Sample Analysis	1-6												1-6	1-6						1-6
.08	.05	Gas Waste Sample Analysis	1-6												1-6	1-6						1-6
.08	.06	Liquid Material/Waste Sampling	1-6												1-6	1-6						1-6
.08	.07	Solid Material/Waste Sampling	1-6												1-6	1-6						1-6
.08	.08	Biota Sample Analysis	1-6												1-6	1-6						1-6
.08	.09	Bioassay Sample Analysis	1-6												1-6	1-6						1-6
.08	.10	Bioaccumulation Studies	1-6												1-6	1-6						1-6
.08	.11	Mobile - Air / Gas Sample Analysis	1-6												1-6	1-6						1-6
.08	.12	Mobile - Groundwater Sample Analysis	1-6												1-6	1-6						1-6
.08	.13	Mobile - Surface Water Sample Analysis	1-6												1-6	1-6						1-6
.08	.14	Mobile - Soil / Sediment Sample Analysis	1-6												1-6	1-6						1-6
.08	.15	Mobile - Gas Waste Sample Analysis	1-6												1-6	1-6						1-6
.08	.16	Mobile - Liquid Waste Sample Analysis	1-6												1-6	1-6						1-6
.08	.17	Mobile - Solid Waste Sample Analysis	1-6												1-6	1-6						1-6
.08	.18	Mobile - Biota Sample Analysis	1-6												1-6	1-6						1-6
.08	.19	Real Time - Air / Gas Sample Analysis	1-6												1-6	1-6						1-6
.08	.20	Real Time - Groundwater Sample Analysis	1-6												1-6	1-6						1-6

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters								
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost		
.08	.21	Real Time - Surface Water Sample Analysis	1-6												1-6	1-6						1-6		
.08	.22	Real Time - Soil / Sediment Sample Analysis	1-6												1-6	1-6						1-6		
.08	.23	Real Time - Gas Waste Sample Analysis	1-6												1-6	1-6						1-6		
.08	.24	Real Time - Liquid Waste Sample Analysis	1-6												1-6	1-6						1-6		
.08	.25	Real Time - Solid Waste Sample Analysis	1-6												1-6	1-6						1-6		
.08	.9X	Other	1-6												1-6	1-6								
.09		SAMPLE MANAGEMENT/DATA VALIDATION/DATA EVALUATION																						
.09	.01	Prepare and Ship Environmental Samples	1-6		1-6										1-6		1-6							
.09	.02	Coordinate with Sample MGT Personnel / Regulators	1-6											1-6	1-6									
.09	.03	Implement EPA-Approved Laboratory QA Program	1-6												1-6									
.09	.04	Provide Sample Management	1-6											1-6	1-6									
.09	.05	Derived Waste Disposal (Gas, Liquid, Solid)								1-6					1-6		1-6							
.09	.06	Perform Data Validation	1-6											1-6	1-6									
.09	.07	Data Usability Evaluation / Field QA / QC	1-6											1-6	1-6									
.09	.08	Data Reduction, Tabulation and Evaluation/Analysis	1-6											1-6	1-6									
.09	.09	Modeling	1-6												1-6									
.09	.10	Document Data Evaluation	1-6											1-6	1-6									
.09	.11	Combined Sample Management	1-6																					
.09	.12	Combined Data Management	1-6																					
.09	.13	Data Review for Effectiveness	4-5											5	4-5									
.09	.9x	Other	1-6																					
.10		TREATABILITY/RESEARCH AND DEVELOPMENT																						
.10	.01	Literature Search	2,3												2,3									
.10	.02	Data Collection	2,3												2,3									
.10	.03	Develop Treatability Work Plan	2,3												2,3									
.10	.04	Design/Procure New Equipment	2,3												2,3	2,3								
.10	.05	Bench Test	2,3													2,3								
.10	.06	Pilot Scale Test	2,3													2,3								
.10	.07	Field Test	2,3													2,3								
.10	.08	Test Special Tools and Equipment	2,3													2,3								
.10	.09	Design, Procure, Test New Procedures	2,3												2,3									
.10	.10	Simulation/Modeling	2,3												2,3									

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.10	.11	Document Treatability Study	2,3												2,3							
.10	.12	Status Review	2,3												2,3							
.10	.13	Technology Transfer	2,3												2,3							
.10	.14	Product Qualification, Characterization, and Certification	2,3												2,3							
.10	.9X	Other	2,3																			
.11		TREATMENT PLANT/FACILITY/PROCESS																				
.11	.01	Covered Treatment Train Technologies Unit							4	4,5				5								
.11	.02	Sheds and Other Supporting Facilities	4,5						4	4,5				5		4,5						
.11	.03	Simple Treatment Facilities (e.g., Equipment Slabs, Utilities)							4					5		4,5						
.11	.04	Treatment Train Facility (e.g., Rain Covers, Foundation, Utilities)							4					4,5		4,5						
.11	.05	Full Scale Environmental Management Plant/Facility							4					4,5		4,5						
.11	.06	Environmental Management Low/Moderate Hazard Treatment Front-End							4					4,5		4,5						
.11	.07	Environmental Management High Hazard/Remote Treatment Front-End							4					4,5		4,5						
.11	.08	Environmental Management Low Hazard Functional Area (e.g., Hazardous/Toxic)							4					4,5		4,5						
.11	.09	Environmental Management Moderate Hazard Functional Area (e.g., Hazardous/Toxic, LLW and MLLW)							4					4,5		4,5						
.11	.10	Environmental Management High Hazard Functional Area (e.g., ALLW, MALLW, TRU, Spent Fuel, and CWM)							4					4,5		4,5						
.11	.11	Environmental Management Remote Functional Area (e.g., ALLW, MALLW, TRU, Spent Fuel, and CWM)							4					4,5		4,5						
.11	.12	Waste Treatment Fees and Taxes								4-6		4-6	4-6				4-6					
.11	.13	Facility Commissioning Activities	4						4													
.11	.9X	Other	4-6																			
.12		STORAGE FACILITY/PROCESS																				
.12	.01	Reserved for Future Use																				
.12	.02	Conventional Storage/Warehouses							4	4				5,6								
.12	.03	Storage Facility Front-End - Low/Moderate Hazard							4	4				5,6								
.12	.04	Storage Facility Front-End - High/Remote Hazard							4	4				5,6								
.12	.05	Contact Handled Storage							4	4				5,6								
.12	.06	Remote Handled Storage							4	4				5,6		4-6						
.12	.07	Mixed Waste Storage Facility							4	4				5,6								

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE	17	18	19	20	21	22	23	24	25	26	27	28	29	Descriptive Parameters							35	36
2	3	Environmental Management	Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost		
.12	.08	Facilities and Sheds for Temporary Storage							4					5		4,5								
.12	.09	Waste Storage Fees and Taxes								4-6	4-6						4-6							
.12	.10	Storage Facility Commissioning Activities	4						4															
.12	.9x	Other																						
.13		DISPOSAL FACILITY/PROCESS																						
.13	.01	Reserved for Future Use																						
.13	.02	Disposal Facility Front-End - Low/Moderate Hazard							4						5,6									
.13	.03	Disposal Facility Front-End - High/Remote Hazard							4						5,6									
.13	.04	Landfill							4	4					5,6		4-6							
.13	.05	Above Ground Vault							4	4					5,6		4-6							
.13	.06	Underground Vault							4	4					5,6		4-6							
.13	.07	Underground Mine/Shaft		4						4					5,6		4-6							
.13	.08	Tanks		4						4					5,6		4-6							
.13	.09	Pads (Tumulus/Retrievable Storage/Other)							4	4					5,6		4-6							
.13	.10	Confined Disposal Facilities (CDFs)		4					4	4					5,6		4-6							
.13	.11	Engineered Disposal		4					4	4					5,6		4-6							
.13	.12	Intermediate Depth Disposal (Burial Ground/Trenches/Pits)		4						4					5,6		4-6							
.13	.13	Geologic Disposal		4						4					5,6		4-6							
.13	.14	Shallow Land Disposal		4						4					5,6		4-6							
.13	.15	Deep Well Injection		4						4					5,6	4-6	4-6							
.13	.16	Silo Disposal		4						4					5,6	4-6	4-6							
.13	.17	Bore - Hole Disposal		4						4					5,6	4-6	4-6							
.13	.18	Disposal Fees and Taxes								4-6	4-6					4-6	4-6							
.13	.19	Disposal Facility Commissioning Activities	4						4															
.13	.9X	Other	4-6																					
.14		ORDNANCE and EXPLOSIVES REMOVAL AND DESTRUCTION (CWM IS INCLUDED IN ECES X.11 and X.20 to X.30)																						
.14	.01	Demolition for OE Removal							4	4						4								
.14	.02	Brush Clearing with OE							4	4						4								
.14	.03	Blast Mats							4							4								
.14	.04	Blast Shields							4							4								

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.14	.05	Surface Sweep (Visual)							4													
.14	.06	Surface Sweep (Magnetometer)							4													
.14	.07	Surface Sweep (Mag and Flag)							4													
.14	.08	Excavate by Hand 0' - 2' Depth		4						4												
.14	.09	Excavate with Heavy Equipment > 2' Depth		4						4						4						
.14	.10	Sifting								4												
.14	.11	Removal of Chemical Warfare Material (CWM)		4						4					4	4						
.14	.12	OE On-Site Destruction								4					4							
.14	.13	Bunkers (Temporary)							4	4					4							
.14	.9X	Other (Use Numbers 90-99)	4																			
.15		DRUMS/TANKS/STRUCTURES/MISC. AND REMOVAL																				
.15	.01	Drum Removal								4					4	4	4					
.15	.02	Tank Removal								4					4	4	4					
.15	.03	Structure Removal		4					4							4	4					
.15	.04	Asbestos Abatement				4			4							4						
.15	.05	Piping and Pipeline Removal		4		4		4								4	4					
.15	.06	Well Abandonment		4				4							4,6							
.15	.9X	Other	1-6																			
.16		AIR POLLUTION/GAS COLLECTION AND CONTROL																				
.16	.01	Gas / Vapor Collection Trench System		4		4	4							5,6				4,5				
.16	.02	Gas / Vapor Collection Well System		4				4						5,6	4,5			4,5				
.16	.03	Gas Collection at Lagoon Cover							4					5,6		4,5						
.16	.04	Fugitive Dust / Vapor / Gas Emission Control							4					5,6		4,5						
.16	.9X	Other	4,5																			
.17		SURFACE WATER/SEDIMENTS CONTAINMENT, COLLECTION, AND CONTROL																				
.17	.01	Dredging / Excavating		4-6						4-6						4-6	4-6					
.17	.02	Berms				4	4			4				5,6				4-6				
.17	.03	Floodwalls				4	4		4					5,6				4-6				
.17	.04	Levees/Dams/Dike				4	4			4				5				4,5				
.17	.05	Terraces and Benches				4	4							5				4,5				

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.17	.06	Channels / Waterways / Ditches				4	4			4				5,6				4,5				
.17	.07	Chutes or Flumes		4		4	4							5,6				4,5				
.17	.08	Sediments Barriers		4		4	4							5,6				4,5				
.17	.09	Storm Drainage		4		4		4						5,6				4,5				
.17	.10	Lagoons / Basins / Tanks		4		4	4			4				5,6	4,5			4,5				
.17	.11	Pumping / Draining / Collection		4-6				4-6		4-6				4-6				4-6				
.17	.12	Erosion Control							4	4				5,6				4,5				
.17	.13	Aquatic Barrier				4			4	4				5,6				4,5				
.17	.14	Sediment Capping		4		4			4					5,6								
.17	.9X	Other	4,5																			
.18		GROUNDWATER CONTAINMENT, COLLECTION, OR CONTROL																				
.18	.01	Extraction Wells		4				4						5,6	4			4,5				
.18	.02	Injection Wells		4				4						5,6	4			4,5				
.18	.03	Subsurface Drainage / Collection/French Drain		4		4	4							5,6				4,5				
.18	.04	Slurry Walls				4			4					5,6								
.18	.05	Grout Curtain		4		4	4		4					5,6								
.18	.06	Sheet Piling		4		4			4					5,6								
.18	.9X	Other	4,5																			
.19		SOLIDS/SOILS CONTAINMENT (e.g., CAPPING/BARRIER) COLLECTION, OR CONTROL																				
.19	.02	Waste Containment, Portable		4						4				5,6		4,5						
.19	.03	Upper Vegetative (topsoil) Layer		4					4					5,6		4,6						
.19	.04	RCRA C Cap		4					4					5,6		4-6						
.19	.05	RCRA D Cap		4					4					5,6		4-6						
.19	.06	Asphalt/Concrete		4					4					5,6		4-6						
.19	.07	Landfill Cap Enhancements		4					4					5,6		4-6						
.19	.08	Engineered Barrier		4					4					5,6		4-6		4-6				
.19	.9X	Other	4,5																			
.20		LIQUID WASTE/SLUDGES (e.g. UST/AST) COLLECTION AND CONTAINMENT																				
.20	.01	Industrial Vacuuming								4,5				4,5		4,5						
.20	.02	Radioactive Specific Waste Containment - Portable								4,5				4,5		4,5						
.20	.03	Pumping / Draining / Collection								4,5				4,5		4,5						

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.20	.9X	Other	4,5																			
.21		IN SITU BIOLOGICAL TREATMENT																				
.21	.01	Biological Barriers		4					4			4,5	4,5	5				4,5				
.21	.02	Reserved for Future Use																				
.21	.03	Bioventing		4						4		4,5	4,5	5				4,5				
.21	.04	Cometabolic Treatment		4						4		4,5	4,5	5				4,5				
.21	.05	Constructed Wetlands		4					4			4,5	4,5	5				4,5				
.21	.06	Enhanced Bioremediation		4						4		4,5	4,5	5				4,5				
.21	.07	Land Treatment		4					4			4,5	4,5	5				4,5				
.21	.08	Natural attenuation		4					4			4,5	4,5	5				4,5				
.21	.09	Phytoremediation		4					4			4,5	4,5	5				4,5				
.21	.10	Baroball								4		4,5	4,5	5	4							
.21	.9X	Other	4,5																			
.22		EX SITU BIOLOGICAL TREATMENT																				
.22	.01	Activated Sludge								4		4,5	4,5	5		4,5		4,5				
.22	.02	Reserved for Future Use																				
.22	.03	Biopile (Bioheap, Biomound)								4		4,5	4,5	5		4,5		4,5				
.22	.04	Cometabolic Treatment								4		4,5	4,5	5		4,5		4,5				
.22	.05	Genetically Engineered Organism								4		4,5	4,5	5		4,5		4,5				
.22	.06	Land Farming								4				5		4,5		4,5				
.22	.07	Rotating Biological Contactors								4		4,5	4,5	5	4	4,5		4,5				
.22	.08	Slurry Phase Biological Treatment								4		4,5	4,5	5		4,5		4,5				
.22	.09	Trickling Filter								4		4,5	4,5	5		4,5		4,5				
.22	.10	Biological Lagoons								4				5		4,5		4,5				
.22	.11	Anaerobic Sludge Digestion								4				5		4,5		4,5				
.22	.12	Composting								4				5		4,5		4,5				
.22	.13	Fungal Biodegradation (White Rot Fungus)								4				5		4,5		4,5				
.22	.9X	Other	4,5																			
.23		IN SITU CHEMICAL TREATMENT																				
.23	.01	Reserved for Future Use																				
.23	.02	Oxygen Release Compounds		4						4				5		4,5		4,5				

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters								
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36		
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost		
.23	.03	Neutralization		4						4				5		4,5		4,5						
.23	.04	Oxidation / Reduction		4						4				5		4,5		4,5						
.23	.05	Soil Flushing (Surfactant / Solvent)		4						4				5		4,5		4,5						
.23	.9X	Other	4,5																					
.24		EX SITU CHEMICAL TREATMENT																						
.24	.01	Glycolate/ Alkali Metal/Polyethylene Glycol (A/PEG)								4		4-5	4,5	5		4	5	4,5						
.24	.02	Base-Catalyzed Decomposition Process								4		4-5	4,5	5		4	5	4,5						
.24	.03	Chemical Hydrolysis								4				5		4	5	4,5						
.24	.04	Chlorination								4				5		4								
.24	.05	Dehalogenation								4		4-5	4,5	5		4	5	4,5						
.24	.06	Hydrogen Reduction								4				5		4	5							
.24	.07	Ion Exchange								4		4-5	4,5	5		4		4,5						
.24	.08	Chemical Oxidation / Reduction								4				5		4	5	5						
.24	.09	Oxygen Release Compounds								4				5		4		5						
.24	.10	Ozonation								4		4-5	4,5	5		4	5	4						
.24	.11	Solvent Extraction								4		4-5	4,5	5		4		4,5						
.24	.12	Neutralization								4				5		4	5	4,5						
.24	.13	Ultraviolet (UV) Photolysis								4		4-5	4,5	5		4								
.24	.14	Ultraviolet (UV) Oxidation								4		4-5	4,5	5		4								
.24	.15	Coagulation / Flocculation / Precipitation								4		4-5	4,5	5		4		4,5						
.24	.16	Activated Alumina								4		4-5	4,5	5		4		4						
.24	.17	Forage Sponge								4		4-5	4,5	5		4		4						
.24	.18	Chemical Extraction (Solvent/Acid/Alkaline Extraction)								4		4-5	4,5	5		4	5	4,5						
.24	.9X	Other	4,5																					
.25		IN SITU PHYSICAL TREATMENT																						
.25	.01	In-Well Air Stripping/Circulating Wells		4					4	4				5		4		4,5						
.25	.02	Air Sparging		4						4				5		4		4,5						
.25	.03	Crushing								4				5			4	4,5						
.25	.04	Cryogenics (Frozen Soil Barrier)		4					4					5		4		4,5						
.25	.05	Fracturing (Hydrofracturing)		4						4				5		4		4,5						

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE	17	18	19	20	21	22	23	24	25	26	27	28	29	Descriptive Parameters							35	36
2	3	Environmental Management	Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost		
.25	.06	Lasagna Process		4					4					5		4		4,5						
.25	.07	Laser (Cutting)				4,5	4,5									4,5		4,5						
.25	.08	Laser (Surface Decontamination)							4,5							4,5		4,5						
.25	.09	Passive/Reactive Treatment Wall		4			4		4						5	4		4,5						
.25	.10	Skimming		4						4					5	4		4,5						
.25	.11	Soil Flushing (Surfactant / Solvent)		4						4					5	4		4,5						
.25	.12	Solids Dewatering/Drying								4					5	4	5	4,5						
.25	.13	Reserved for Future Use																						
.25	.14	Vacuum Blasting		4					4						5	4	5	4,5						
.25	.15	Coating		4					4-6						4-6	4-6		4-6						
.25	.16	Electrokinetics		4					4,5	4,5					5	4		4,5						
.25	.17	Soil Vapor Extraction		4					4,5	4,5		4,5	4,5		5	4		4,5						
.25	.18	Fracturing (Pneumatic)		4					4						5	4		4,5						
.25	.19	Blast Enhanced Fracturing		4					4						5	4		4,5						
.25	.20	Directional Wells (Enhancement)		4												4		4,5						
.25	.21	Bioslurping		4					4,5	4,5					5	4		4,5						
.25	.22	Dual Phase Extraction (Multi-Phase)		4					4,5	4,5					5	4		4,5						
.25	.23	Draw-Down Pumping		4					4,5	4,5					5	4		4,5						
.25	.9X	Other	4,5																					
.26		EX SITU PHYSICAL TREATMENT																						
.26	.01	Aeration								4		4,5	4,5		5	4	4,5	4,5						
.26	.02	Advanced Electrical Reactor								4					5	4	4,5	4,5						
.26	.03	Agglomeration								4					5	4	4,5	4,5						
.26	.04	Air Stripping		4						4		4,5	4,5		5	4		4,5						
.26	.05	Chelation								4					5	4		4,5						
.26	.06	Crushing								4					5		4,5							
.26	.07	Compaction/Volume Reduction								4					5	4	4,5	4,5						
.26	.08	Spray Dryer								4					5	4	4,5							
.26	.09	Decant/Phase Separation								4					5	4	4,5	4,5						
.26	.10	Dissolved Air Flootation								4		4,5	4,5		5	4	4,5	4,5						

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE	17	18	19	20	21	22	23	24	25	26	27	28	29	Descriptive Parameters						35	36
2	3	Environmental Management	Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost	
.26	.11	Distillation								4		4,5	4,5	5		4		4,5					
.26	.12	E-Beam								4				5		4	4,5	4,5					
.26	.13	Electrochemical Oxidation								4				5		4	4,5	4,5					
.26	.14	Reserved for Future Use																					
.26	.15	Electrolysis								4				5		4	4,5	4,5					
.26	.16	Equalization								4				5		4		4,5					
.26	.17	Evaporation								4				5		4		4,5					
.26	.18	Soil Vapor Extraction								4		4,5	4,5	5		4	4,5	4,5					
.26	.19	Filter Presses								4				5		4	4,5	4,5					
.26	.20	Media Filtration								4		4,5	4,5	5		4		4,5					
.26	.21	Freeze Crystallization								4		4,5	4,5	5		4		5					
.26	.22	Reserved for Future Use																					
.26	.23	Granular Activated Carbon Adsorption- Liquid								4		4,5	4,5	5		4		4,5					
.26	.24	Heavy Media Separation								4				5		4	4,5	4,5					
.26	.25	High Pressure Aqueous Destruction							4	4				5		4		4,5					
.26	.26	Lignin Adsorption / Sorptive Clays								4		4,5	4,5	5		4		4,5					
.26	.27	Magnetic Separation								4		4,5	4,5	5		4		4,5					
.26	.28	Membrane Separation-Electrodialysis							4	4		4,5	4,5	5		4		4,5					
.26	.29	Reverse Osmosis							4	4		4,5	4,5	5		4		4,5					
.26	.30	Oil / Water Separation								4				5		4		4,5					
.26	.31	Sedimentation								4				5		4		4,5					
.26	.32	Shredding								4				5		4		4,5					
.26	.33	Sieving (Physical Separation)								4				5		4		4,5					
.26	.34	Skimming								4				5		4		4,5					
.26	.35	Soil Washing (Surfactant / Solvent)								4		4,5	4,5	5		4		4,5					
.26	.36	Solids Dewatering/Drying								4				5		4		4,5					
.26	.37	Sprinkler Irrigation				4				4				5		4		4,5					
.26	.38	Supercritical Extraction								4		4,5	4,5	5		4		4,5					
.26	.39	Surfactant Enhanced Recovery								4		4,5	4,5	5		4		4,5					
.26	.40	Synthetic Resin Adsorption								4		4,5	4,5	5		4		4,5					

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE	17	18	19	20	21	22	23	24	25	26	27	28	29	Descriptive Parameters							35	36
2	3	Environmental Management	Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost		
.26	.41	Gravity Separation								4				5		4		4,5						
.26	.42	Cryogenics												5	4	4		4,5						
.26	.43	Nanofiltration							4	4		4,5	4,5	5		4		4,5						
.26	.44	Ultrafiltration/Microfiltration							4	4		4,5	4,5	5		4		4,5						
.26	.45	Membrane Pervaporation							4	4		4,5	4,5	5		4		4,5						
.26	.9X	Other	4,5																					
.27		IN SITU THERMAL TREATMENT																						
.27	.01	Thermal Blanket		4					4					5		4		4,5						
.27	.02	Six Phase Heating and Extraction		4					4	4				5		4		4,5						
.27	.03	Reserved for Future Use																						
.27	.04	Steam/Hot Water Injection Vacuum Extraction		4					4	4				5		4		4,5						
.27	.05	High Temperature Thermal Desorption		4					4	4				5		4		4,5						
.27	.06	Reserved for Future Use																						
.27	.07	Low Temperature Thermal Desorption		4					4	4				5		4		4,5						
.27	.08	Radiofrequency/Electromagnetic Heating		4					4	4				5		4		4,5						
.27	.9X	Other	4,5																					
.28		EX SITU THERMAL TREATMENT																						
.28	.01	High Temperature Thermal Desorption								4		4,5	4,5	5		4		4,5			5			
.28	.02	Incineration								4				5		4,5		4,5			5			
.28	.03	Low Temperature Thermal Desorption								4		4,5	4,5	5		4,5		4,5			5			
.28	.04	Molten Salt Oxidation								4				5		4,5		4,5			5			
.28	.05	Open Burn/Open Detonation								4				5		4,5		4,5						
.28	.06	Plasma								4				5		4,5		4,5			5			
.28	.07	Pyrolysis								4				5		4,5		4,5			5			
.28	.08	Reserved for Future Use																						
.28	.09	Retort/Amalgamation								4		4,5	4,5	5		4,5		4,5						
.28	.10	Solar Detoxification/Evaporation								4		4,5	4,5	5		4,5								
.28	.11	Steam Stripping/Flushing/Reforming								4				5		4,5		4,5						
.28	.12	Supercritical Water Oxidation								4				5		4,5		4,5						
.28	.13	Thermally Enhanced Vapor Extraction								4		4,5	4,5	5		4,5		4,5						

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE	17	18	19	20	21	22	23	24	25	26	27	28	29	Descriptive Parameters							35	36
2	3	Environmental Management	Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost		
.28	.14	Molten Metal								4				5		4,5		4,5						
.28	.15	Hot Gas Decontamination								4		4,5	4,5	5		4,5		4,5						
.28	.9X	Other	4,5																					
.29		IN SITU STABILIZATION/FIXATION/ENCAPSULATION																						
.29	.01	Asphalt-Based Encapsulation		4						4				5		4		4,5						
.29	.02	Grout Injection		4						4				5		4		4,5						
.29	.03	Pozzolan Process		4						4				5		4		4,5						
.29	.04	In Situ Vitrification		4						4				5		4		4,5	4,5					
.29	.05	In Situ Pipe Grouting				4		4		4						4		4						
.29	.9X	Other	4,5																					
.30		EX SITU STABILIZATION/FIXATION/ENCAPSULATION																						
.30	.01	Asphalt-Base Encapsulation								4				5		4,5	4,5	4,5						
.30	.02	Calcination								4				5		4,5	4,5	4,5						
.30	.03	Polymer Based Encapsulation								4				5		4,5	4,5	4,5						
.30	.04	Pozzolan Process (Lime/Portland Cement)								4				5		4,5	4,5	4,5						
.30	.05	Reserved for Future Use																						
.30	.06	Sludge Stabilization (Aggregate / Rock / Slag)								4				5		4,5		4,5						
.30	.07	Vitrification/Molten Glass								4				5		4,5		4,5						
.30	.08	Modified Sulfur Cement								4				5		4,5		4,5						
.30	.09	Polyethylene Extrusion								4				5		4,5		4,5						
.30	.10	Emulsified Asphalt								4				5		4,5		4,5						
.30	.9X	Other	4,5																					
.31		FACILITY DECOMMISSIONING & DISMANTLEMENT																						
.31	.01	Nuclear Facility Shutdown and Inspection							4,5	4				5	4,5	4,5								
.31	.02	Deactivation							4	4				5		4,5								
.31	.03	Preparation for Dormancy							4	4				5		4,5								
.31	.04	Hot Cell Equipment Modification							4					5	4,5	4,5								
.31	.05	Site Reconfiguration, Isolating and Securing Structure							4,5						4,5	4,5								
.31	.06	Removal of Fuel Handling Equipment	4,5											5	4,5	4,5								
.31	.07	Radiological Inventory Categorization for D&D	4,5						4,5					4,5		4,5								
.31	.08	Preparation and Decontamination of Area and Equipment							4					5	4,5	4,5						4,5		

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE	17	18	19	20	21	22	23	24	25	26	27	28	29	Descriptive Parameters									
2	3	Environmental Management	Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost			
.31	.09	Dismantling & Removal of Contaminated Equipment/Material							4	4				5	4,5	4,5	4,5								
.31	.10	Dismantling Operations on Reactor Vessel and Internals								4				5	4,5	4,5						4,5			
.31	.11	Removal of Primary and Auxiliary Systems							4	4				5	4,5	4,5	4,5								
.31	.12	Dismantling and Removal of Biological Shield							4	4				5	4,5	4,5	4,5								
.31	.13	Removal of Pool Linings							4	4				5		4,5	4,5								
.31	.14	Dismantling of In-Cell Equipment												5	4	4,5	4,5					4,5			
.31	.15	Removal of other Material and Equipment from Containment Structure							4					5	4,5	4,5	4,5								
.31	.16	Facility (Controlled Area) Hardening, Isolation, or Entombment							4	4				5		4,5	4,5								
.31	.17	Removal of All Other Facilities, or Entire Contaminated Facility							4					5		4,5	4,5								
.31	.18	Dismantling of Temporary Fuel Storage Facility							4					5		4,5	4,5					4,5			
.31	.19	Dismantling of Intermediate Fuel Storage Facility							4					5		4,5	4,5					4,5			
.31	.20	Reprocessing Costs								4				5		4,5	4,5								
.31	.21	Dismantling or Demolition of Other Facilities							4	4				5		4,5		4,5				4,5			
.31	.9X	Other	4,5																						
.32		MATERIAL HANDLING/TRANSPORTATION																							
.32	.01	Waste Stream Handling/Packaging								1-4				5		1-5	1-5	1-5							
.32	.02	Transportation Device/Equipment								1-4	1-4			5	1-4	1-5		1-5							
.32	.03	OE Off-Site Destruction Transportation to DOD Facility			1-4					1-4				5	1-4	1-5									
.32	.04	Reserved for Future Use																							
.32	.05	Reserved for Future Use																							
.32	.06	Reserved for Future Use																							
.32	.07	Reserved for Future Use																							
.32	.08	Reserved for Future Use																							
.32	.09	Reserved for Future Use																							
.32	.10	Certification and Shipping			1-4					1-4	1-4			5	1-5	1-5		1-5							
.32	.11	Transportation by Truck			1-5					1-5	1-5						1-5								
.32	.12	Transportation by Rail			1-5					1-5	1-5						1-5								
.32	.13	Transportation by Barge			1-5					1-5	1-5						1-5								
.32	.14	Transportation by Air			1-5					1-5	1-5						1-5								
.32	.15	Container Handling	1-5							1-5	1-5						1-5								
.32	.9X	Other	1-5												1-5										
.33		DISPOSAL																							

Secondary Parameters (Changed Units of Measure)

Lvl	Lvl	ENVIRONMENTAL COST ELEMENT STRUCTURE														Descriptive Parameters						
2	3	Environmental Management	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
			Lump Sum	Depth/Vertical	Distance	Length	Width	Diameter	Area	Volume	Weight	Concentration In	Concentration Out	Rate	Number/Each	Type of Equipment	Physical State of Media	Materials Used	Special Cond./ Special Technology Param.	Special Technology Requirements	Techniques or Technologies*	Any Other Factors Effecting Cost
.33	.01	Reserved for Future Use																				
.33	.02	Reserved for Future Use																				
.33	.03	Reserved for Future Use																				
.33	.04	On-site Government Disposal Costs, Fees, and Taxes			1-6					1-6	1-6						1-6					
.33	.05	On-site Commercial Disposal Costs, Fees, and Taxes			1-6					1-6	1-6						1-6					
.33	.06	Off-site Government Disposal Costs, Fees, and Taxes			1-6					1-6	1-6						1-6					
.33	.07	Off-Site Other Government Disposal Costs, Fees, and Taxes			1-6					1-6	1-6						1-6					
.33	.08	Off-Site Commercial Disposal Costs, Fees, and Taxes			1-6					1-6	1-6						1-6					
.33	.09	Discharge to POTW			1-6					1-6	1-6											
.33	.9X	Other	1-5																			
.34		AIR EMISSION AND OFF-GAS TREATMENT																				
.34	.01	Biofiltration								4		4,5	4,5	5				4,5				
.34	.02	High Energy Corona								4		4,5	4,5	5		4,5						
.34	.03	Turnable Hybrid Plasma Reactor								4				5		4,5						
.34	.04	Membrane Separation								4		4,5	4,5	5				4,5				
.34	.05	Catalytic Oxidation								4				5		4,5		4,5				
.34	.06	Thermal/Oxidation								4				5		4,5		4,5				
.34	.07	Ultraviolet Oxidation								4				5		4,5		4,5				
.34	.08	VOC Recovery and Recycle								4				5		4,5		4,5				
.34	.09	Internal Combustion Engine								4				5		4,5		4,5				
.34	.10	Granular Activated Carbon Adsorption Gas/Vapor								4		4,5	4,5	5		4,5		4,5				
.34	.11	Alkali Bed Reactor								4		4,5	4,5	5		4,5		4,5				
.34	.12	Flameless Thermal Oxidation								4				5		4,5		4,5				
.34	.13	Condensation								4				5		4,5		4,5				
.34	.14	Flaring								4		4,5	4,5	5				4,5				
.34	.15	Synthetic Resin Adsorption								4		4,5	4,5	5		4,5		4,5				
.34	.9x	Other	4,5																			
.9X		OTHER (Use Numbers 90-99)	1-6																			