### A.3.6 Planning and Preparation (Work Days)

Activity	IMCOM RSSO	Installation RSO	Army Oversight HP	Army Oversight Safety	Project Manager	Project Engineer	Project CHP	Project Safety	Clerical	Project UXO	CADD	Field Supervisor	Field HP	Field Safety/UXO	Field HP Tech	Field UXO Tech	Laborer
Preparation of Documentation for																	
Regulatory Agencies	10	1	10	5	2				5								
Submittal of Decommissioning Plan to																	
NRC when required by 10 CFR																	
30.36(g)(1), 40.42(g)(1), 70.38(g)(1), or																	
72.54(g).	10	1	10	1	5	20	20	2	2	1	2	1	1	1			
Development of Work Plans	10	2	10	6		10	10	2	2	1	4	1	1	1			
Procurement of Special Equipment					1	2	1			1							
Staff Training	1		1		1		1	1		1		1	1	1	1	1	
Characterization of Radiological Condition of the Facility (including sampling, soil and tailings analysis, or groundwater analysis, if applicable)																	
Other (specify)																	
TOTALS	31	4	31	12	9	32	32	5	9	4	6	3	3	3	1	1	0

## A.3.7 Decontamination or Dismantling of Radioactive Facility Components (Work Days)

Component / Decon. Method	IMCOM RSSO	Installation RSO	Army Oversight HP	Army Oversight Safety	Project Manager	Project Engineer	Project CHP	Project Safety	Clerical	Project UXO	CADD	Field Supervisor	Field HP	Field Safety/UXO	Field HP Tech	Field UXO Tech	Laborer
Glove Boxes																	
Fume Hoods																	
Lab Benches																	
Sinks																	
Drains																	
Floors																	
Walls																	
Ceilings																	
Ventilation/ Ductwork																	
Hot Cells																	
Equipment/ Materials																	
Soil Plots (field management in FSS)															50	50	100
Storage Tanks																	1
Storage Areas																	
Radwaste Areas																	
Scrap Recovery Areas																	1
Maintenance Shop																	1
Equipment Decontamination Areas																	
Other (specify)																	1
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	100

### A.3.8 Restoration of Contaminated Areas on Facility Grounds (Work Days)

Activity	IMCOM RSSO	Installation RSO	Army Oversight HP	Army Oversight Safety	Project Manager	Project Engineer	Project CHP	Project Safety	Clerical	Project UXO	CADD	Field Supervisor	Field HP	Field Safety/UXO	Field HP Tech	Field UXO Tech	Laborer
Backfill and Restore Site																	
TOTALS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

### A.3.9 Final Radiation Survey (Work Days)

Activity	IMCOM RSSO	Installation RSO	Army Oversight HP	Army Oversight Safety	Project Manager	Project Engineer	Project CHP	Project Safety	Clerical	Project UXO	CADD	Field Supervisor	Field HP	Field Safety/UXO	Field HP Tech	Field UXO Tech	Laborer
First Pass Gamma Walkover															165	165	33
Re-survey of Deconned Areas															17	17	3
Sample Collection															124	124	0
Field Effort Oversight and Management	4	4	36	36	4	4	7	4	4	4	36	36	36	72			1
Reporting	20	1	4	4	1	5	10	1	2		5						1
Reporting TOTALS	24	5	40	40	5	9	17	5	6	4	41	36	36	72	306	306	36

#### A.3.10 Site Stabilization and Long-term Surveillance (Work Days)

Activity	IMCOM RSSO	Installation RSO	Army Oversight HP	Army Oversight Safety	Project Manager	Project Engineer	Project CHP	Project Safety	Clerical	Project UXO	CADD	Field Supervisor	Field HP	Field Safety/UXO	Field HP Tech	Field UXO Tech	Laborer
Five year review	5	5	20														í l
																	í l
																	1
																	í l
																	í l
TOTALS	5	5	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0

### A.3.11 Total Work Days by Labor Category

Task	IMCOM RSSO	Installation RSO	Army Oversight HP	Army Oversight Safety	Project Manager	Project Engineer	Project CHP	Project Safety	Clerical	Project UXO	CADD	Field Supervisor	Field HP	Field Safety/UXO	Field HP Tech	Field UXO Tech	Laborer
Planning and Preparation (TOTALS																	ſ
from Table A.3.6)	31	4	31	12	9	32	32	5	9	4	6	3	3	3	1	1	0
Decontamination and/or Dismantling of Radioactive Facility Components (Sum of TOTALS from all copies of Table A.3.7)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	50	50	100
Restoration of Contaminated Areas on Facility Grounds (TOTALS from Table A.3.8)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Final Radiation Survey (TOTALS from Table A.3.9)	24	5	40	40	5	9	17	5	6	4	41	36	36	72	306	306	36
Site Stabilization and Long-Term Surveillance (TOTALS from Table A.3.10)	5	5	20	0	0	0	0	0	0	0	0	0	0	0	0	0	0

#### A.3.12 Worker Unit Cost Schedule

Labor Cost Component	IMCOM RSSO	Insta	allation RSO	Army Oversight HP	Army Oversight Safety	Project Manager	Project Engineer	Project CHP	Project Safety	Clerical	Project UXO	CADD	Field Supervisor	Field HP	Field Safety/UXO	Field HP Tech	Field UXO Tech	Laborer
Salary & Fringe (\$/year)	\$ 130,000	) \$	115,000	\$ 115,000	\$ 105,000	\$ 140,000	\$ 120,000	\$ 150,000	\$ 115,000	\$ 65,000	\$ 140,000	\$ 85,000	\$ 134,750	\$ 201,250	\$ 148,750	\$ 134,750	\$ 134,750	\$ 80,850
Overhead Rate (%)	1549	6	154%	154%	154%	125%	125%	125%	125%	125%	125%	125%	125%	82%	82%	82%	82%	82%
Total Cost Per Year	\$ 330,200	) \$	292,100	\$ 292,100	\$ 266,700	\$ 315,000	\$ 270,000	\$ 337,500	\$ 258,750	\$ 146,250	\$ 315,000	\$ 191,250	\$ 303,188	\$ 366,275	\$ 270,725	\$ 245,245	\$ 245,245	\$ 147,147
Total Cost Per Work Day*	\$ 1,270	) \$	1,123	\$ 1,123	\$ 1,026	\$ 1,212	\$ 1,038	\$ 1,298	\$ 995	\$ 563	\$ 1,212	\$ 736	\$ 1,166	\$ 1,409	\$ 1,041	\$ 943	\$ 943	\$ 566
Notes:																		

\* Based on \_260 work days per year (e.g., 260 days). Field personnel salary based on 60 hour work weeks.

## A.3.13 Total Labor Costs by Major Decommissioning Task

	IMCOM RSSO	) In	stallation RSO	Army Oversight HP	Army Oversight		Project	Project Engineer	Project CHP	Projec	t Safetv	Clerical	Project U	хо	CADD	Fiel		Field HP	Field		Field HP	Field UXO	Laborer
Task				•	Safety	N	lanager	.,	,						-	Superv	VISOL		Safety/L	X0	Tech	Tech	
Planning and Preparation	\$ 39,3	70 \$	4,494	\$ 34,827	\$ 12,309	S	10,904	\$ 33,231	\$ 41,538	\$	4,976	\$ 5,063	\$ 4,8	846 \$	\$ 4,413	\$ 3	3,498	\$ 4,226	\$ 3,	124	\$ 943	\$ 943	s -
Decontamination or Dismantling of																							
Radioactive Facility Components	\$ -	\$	-	s -	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	- 9	\$-	\$	-	s -	\$	-	\$ 47,163	\$ 47,163	\$ 56,595
Restoration of Contaminated Areas on																							
Facility Grounds	\$ -	\$	-	s -	\$ -	\$	-	\$ -	\$ -	\$	-	\$ -	\$	- 9	\$-	\$	-	s -	\$	-	\$ -	\$ -	s -
Final Radiation Survey	\$ 30,4	80 \$	5,617	\$ 44,938	\$ 41,031	\$	6,058	\$ 9,346	\$ 22,067	\$	4,976	\$ 3,375	\$ 4,8	846 \$	\$ 30,159	\$ 41	1,980	\$ 50,715	\$ 74,	970	\$ 288,635	\$ 288,635	\$ 20,374
Site Stabilization and Long-Term																							
Surveillance	\$ 6,3	50 \$	5,617	\$ 22,469	\$ -	s	-	\$ -	\$ -	\$	-	s -	\$	- 9	<b>5</b> -	\$	-	s -	\$	-	\$ -	\$ -	s -
	\$ 76,2	00 \$	15,728	\$ 102,235	\$ 53,340	Ş	16,962	\$ 42,577	\$ 63,606	\$	9,952	\$ 8,438	\$ 9,0	692 \$	\$ 34,572	\$ 45	5,478	\$ 54,941	\$ 78,	094	\$ 336,740	\$ 336,740	\$ 76,969

## A.3.14 Packaging, Shipping, and Disposal of Radioactive Wastes (a) Packing Material Costs

Waste Type	Volume (m <sup>3</sup> )	Number of containers	Type of Container	Unit Cost of Container	Total Packaging Costs
Spotter Rounds and Frags w soil	8.50	40	55 gallon drum	\$ 100	\$ 4,000
PPE	11	50	55 gallon drum	\$ 100	\$ 5,000
TOTAL	19.5	90	-	-	\$ 9,000

## (b) Shipping Costs

Waste Type	Number of Conveyances	Unit Cost (\$/conveyance)	Surcharges (\$/conveyance)	Overweight Charges (\$/convevance)	Distance Shipped (miles)	Total Shiping Costs
Spotter Rounds and Frags w soil	1	\$ 15,000				\$ 15,000
PPE to US Ecology Idaho	1	\$ 15,000				\$ 15,000
TOTAL	2					\$ 30,000

## (c) Waste Disposal Costs

Waste Type	Disposal Volume (m <sup>3</sup> )		Unit Cost (\$/m³)	Surcharges (\$/m <sup>3</sup> )	То	tal Disposal Costs
Spotter Rounds and Frags w soil	8.50	\$	15,319		\$	130,139
PPE at US Ecology Idaho	11	\$	250		\$	2,750
TOTAL	19.49505398	-			\$	132,889

## A.3.15 Equipment/supply Costs (Excluding Containers)

				Total
Equipment/Supplies	Quantity	Unit Cost	Equ	ipment/Supply
				Cost
Monthly facility cost	2	\$ 5,000	\$	10,000
Monthly instrument cost	2	\$ 45,000	\$	90,000
Monthly consumable cost	2	\$ 15,000	\$	30,000
Monthly vehicle cost	2	\$ 20,000	\$	40,000
Monthly PPE cost	2	\$ 2,000	\$	4,000
			\$	-
			\$	-
			\$	-
			\$	-
			\$	-
			\$	-
			\$	-
			\$	-
TOTAL			\$	174,000

## A.3.16 Laboratory Costs

Activity	Tota	Total Cost		
Sampling				
Transport of samples	\$	31,500		
Testing and analysis	\$	630,000		
Other (specify)				
TOTAL	\$	661,500		

## A.3.17 Miscellaneous Costs

Cost Item	Total Cost	
License Fees	\$	50,000
Government Contact Acquisition	\$	75,000
Taxes		
Air fare	\$	103,500
Per diem	\$	464,957
Contractor fee	\$	300,000
Other (specify)		
TOTAL	\$	993,457

# A.3.18 Total Decommissioning Costs

Task/Component	Cost		Percentage
Planning and Preparation (From Table A.3.13)	\$	208,706	6%
Decontamination and/or Dismantling of Radioactive Facility Components (From Table A.3.13)	\$	150,920	4%
Restoration of Contaminated Areas on Facility Grounds (From Table A.3.13)	\$	-	0%
Final Radiation Survey (From Table A.3.13)	\$	968,201	29%
Site Stabilization and Long-Term Surveillance (From Table A.3.13)	\$	34,437	1%
Packing Material Costs (TOTAL from Table A.3.14(a))	\$	9,000	0%
Shipping Costs (TOTAL from Table A.3.14(b))	\$	30,000	1%
Waste Disposal Costs (TOTAL from Table A.3.14(c))	\$	132,889	4%
Equipment/Supply Costs (TOTAL from Table A.3.15)	\$	174,000	5%
Laboratory Costs (TOTAL from Table A.3.16)	\$	661,500	20%
Miscellaneous Costs (TOTAL from Table A.3.17)	\$	993,457	30%
SUBTOTAL	\$	3,363,110	100%
25% Contingency		840,778	
TOTAL DECOMMISSIONING COST ESTIMATE	\$	4,203,888	]