

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX					HTRW REMEDIAL ACTION (CONSTRUCTION)		
	01				MOBILIZATION AND PREPARATORY WORK		
	01	01			Mobilization of Construction Equipment and Facilities	EA	EA
	01	01	01		Transport Vehicles Ownership/Operation	HR	HR
	01	01	02		Drivers	HR	HR
	01	01	03		Manifests	EA	EA
	01	01	04		Tolls	EA	EA
	01	01	05		Permits	EA	EA
	01	01	06		Escort Vehicles Ownership/Operation	HR	HR
	01	01	07		Construction Equipment Ownership/Operation	HR	HR
	01	01	08		Equipment Operators	HR	HR
	01	01	09		Initial Assembly and Setup	EA	EA
	01	01	9x		Other (Use Numbers 90-99)		
	01	02			Mobilization of Personnel	EA	EA
	01	02	01		Relocation of Supervisory Personnel	EA	EA
	01	02	02		Site Visits/Meetings (During RA)	EA	EA
	01	02	9x		Other (Use Numbers 90-99)		
	01	03			Submittals/Implementation Plans	EA	EA
	01	03	01		Chemical Data Acquisition Plan (Sampling and Analysis Plan)	EA	EA
	01	03	02		Spill Control Plan	EA	EA
	01	03	03		Erosion Control Plan	EA	EA
	01	03	04		Environmental Protection Plan	EA	EA
	01	03	05		Sedimentation Control Plan	EA	EA
	01	03	06		Pollution Control Plan	EA	EA
	01	03	07		Letters of Commitment	EA	EA
	01	03	08		Site Safety and Health Plan (SSHP)	EA	EA
	01	03	09		Air Monitoring Plan	EA	EA
	01	03	10		Traffic Control Plan	EA	EA
	01	03	11		Site Security Plan	EA	EA
	01	03	12		Contaminated Water Storage and Treatment Plan	EA	EA
	01	03	13		General Site Work Plan	EA	EA
	01	03	14		Construction Quality Control Plan	EA	EA
	01	03	15		Materials Handling/Transportation/Disposal Plan	EA	EA
	01	03	16		Asbestos Hazard Abatement Plan	EA	EA
	01	03	17		Phase-Out Report	EA	EA
	01	03	18		Accident Prevention Plan	EA	EA
	01	03	19		Phase Safety Plan	EA	EA
	01	03	20		Emergency Response Plan	EA	EA
	01	03	21		Trial Burn Plan	EA	EA
	01	03	22		Sampling Plan	EA	EA
	01	03	23		Property Equipment Plan	EA	EA
	01	03	24		Operational Plan	EA	EA
	01	03	25		Location Survey & Mapping Plan	EA	EA
	01	03	26		Work, Data, & Cost Management Plan	EA	EA
	01	03	27		Chemical Accident or Incident Response and Assistance Plan	EA	EA
	01	03	28		Performance and Compliance Monitoring Plan	EA	EA
	01	03	29		Site Safety Submission	EA	EA
	01	03	30		Other Technology Plans	EA	EA
	01	03	31		Experience Record	EA	EA

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	01	03	32		Financial Statement	EA	EA
	01	03	33		Small Business Plan	EA	EA
	01	03	34		Subcontracting Plan	EA	EA
	01	03	35		Construction Scheduling (CPM)	EA	EA
	01	03	36		Training Certifications	EA	EA
	01	03	37		Medical Surveillance Certifications	EA	EA
	01	03	38		Permits	EA	EA
	01	03	39		Patent Fees	EA	EA
	01	03	9x		Other (Use Numbers 90-99)		
	01	04			Setup/Construct Temporary Facilities	EA	EA
	01	04	01		Office Trailers	EA	EA
	01	04	02		Storage Facilities	SF	M2
	01	04	03		Observation Tower	EA	EA
	01	04	04		Decontamination Facilities for Personnel	EA	EA
	01	04	05		Decontamination Facilities for Construction Equip/Vehicles	EA	EA
	01	04	06		Temporary Cover Structure Over Contaminated Area	SY	M2
	01	04	07		Lunch/Break Trailer	EA	EA
	01	04	08		Laundry Facilities	SF	M2
	01	04	09		Emergency Medical Trailer/Facilities	SF	M2
	01	04	10		Toilets	EA	EA
	01	04	11		Barricades	EA	EA
	01	04	12		Equipment Maintenance Shop	SF	M2
	01	04	13		Warehouses	SF	M2
	01	04	14		Government Trailers	EA	EA
	01	04	15		Guard Houses	EA	EA
	01	04	16		Truck Scales	EA	EA
	01	04	17		Wastewater Holding Tanks	EA	EA
	01	04	18		Fire Suppression Systems	EA	EA
	01	04	19		POL Dispensing Station	EA	EA
	01	04	20		Photographic Laboratory	EA	EA
	01	04	21		Housing	EA	EA
	01	04	22		Shop Facilities	SF	M2
	01	04	23		Aggregate Surfacing	TON	MT
	01	04	24		Security Fencing	LF	M
	01	04	25		Roads and Parking	SY	M2
	01	04	26		Culverts	LF	M
	01	04	27		Walks	SF	M2
	01	04	28		Signs	EA	EA
	01	04	29		Grading	SY	M2
	01	04	30		Erosion Control	SY	M2
	01	04	9x		Other (Use Numbers 90-99)		
	01	05			Construct Temporary Utilities	EA	EA
	01	05	01		Site Lighting	EA	EA
	01	05	02		Power Connection/Distribution	LF	M
	01	05	03		Telephone/Communications Distribution	LF	M
	01	05	04		Water Connection/Distribution	LF	M
	01	05	05		Sewer Connection/Distribution	LF	M
	01	05	06		Gas Connection/Distribution	LF	M
	01	05	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	01	06			Temporary Relocations/Roads/Structures/Utilities	EA	EA
	01	06	01		Roads	SY	M2
	01	06	02		Structures	SF	M2
	01	06	03		Utilities	LF	M
	01	06	9x		Other (Use Numbers 90-99)		
	01	07			Construction Plant Erection	EA	EA
	01	07	01		Concrete Batch	EA	EA
	01	07	02		Block	EA	EA
	01	07	03		Precast	EA	EA
	01	07	04		Asphalt	EA	EA
	01	07	05		Quarry Crusher/Screens	EA	EA
	01	07	9x		Other (Use Numbers 90-99)		
	01	08			Institutional Controls	EA	EA
	01	08	9x		Other (Use Numbers 90-99)		
	01	09			Alternate Water Supply	EA	EA
	01	09	9x		Other (Use Numbers 90-99)		
	01	10			Population Relocation	EA	EA
	01	10	9x		Other (Use Numbers 90-99)		
	01	9X			Other (Use Numbers 90-99)		
	02				MONITORING, SAMPLING, TESTING, AND ANALYSIS		
	02	01			Meteorological Monitoring	EA	EA
	02	01	01		Meteorological Monitoring Station	EA	EA
	02	01	02		Instrument Shelters	EA	EA
	02	01	9x		Other (Use Numbers 90-99)		
	02	02			Radiation Monitoring	EA	EA
	02	02	01		Area Monitoring	MO	MO
	02	02	02		Personal Dosimetry	MO	MO
	02	02	03		Personnel Radiation Counting	MO	MO
	02	02	04		Dosimetry Systems	MO	MO
	02	02	05		Diagnostics, Quality Assurance, and Calibration	MO	MO
	02	02	9x		Other (Use Numbers 90-99)		
	02	03			Air Monitoring and Sampling	EA	EA
	02	03	01		Real Time	MO	MO
	02	03	02		Non-Real Time	MO	MO
	02	03	03		Asbestos	MO	MO
	02	03	9x		Other (Use Numbers 90-99)		
	02	04			Monitoring Wells	EA	EA
	02	04	01		Drill Setup	EA	EA
	02	04	02		Well Drilling	LF	M
	02	04	03		Handling of Cuttings/Water	GAL	LIT
	02	04	04		Casing	LF	M
	02	04	05		Casing Removal	LF	M

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	02	04	06		Gravel Pack Material	CF	M3
	02	04	07		Grout	CF	M3
	02	04	08		Wet Well	EA	EA
	02	04	09		Well Development/Testing	EA	EA
	02	04	10		Well Screen	LF	M
	02	04	11		Capping	EA	EA
	02	04	12		Well House	EA	EA
	02	04	13		Well Pump and Controls/Instrumentation	EA	EA
	02	04	14		Well Piping, Valves, Fittings	LF	M
	02	04	15		Flow Meter	EA	EA
	02	04	16		Lysimeters	EA	EA
	02	04	17		Electrical	EA	EA
	02	04	18		Tests	EA	EA
	02	04	19		Operation During Construction	MO	MO
	02	04	20		Monitoring Well Abandonment	EA	EA
	02	04	9x		Other (Use Numbers 90-99)		
	02	05			Sampling Surface Water/Ground Water/Liquid Waste	EA	EA
	02	05	01		Surface Water	EA	EA
	02	05	02		Ground Water	EA	EA
	02	05	03		Liquid Waste	EA	EA
	02	05	04		Treatment Process Effluents	EA	EA
	02	05	05		Sample Shipping and Handling	EA	EA
	02	05	9x		Other (Use Numbers 90-99)		
	02	06			Sampling Soil and Sediment	EA	EA
	02	06	01		Surface Soil	EA	EA
	02	06	02		Sub-surface Soil	EA	EA
	02	06	03		Sediment/Sludge	EA	EA
	02	06	04		Sample Shipping and Handling	EA	EA
	02	06	9x		Other (Use Numbers 90-99)		
	02	07			Sampling Asbestos	EA	EA
	02	07	9x		Other (Use Numbers 90-99)		
	02	08			Sampling Radioactive Contaminated Media	EA	EA
	02	08	01		Surface Water	EA	EA
	02	08	02		Ground Water	EA	EA
	02	08	03		Liquid Water	EA	EA
	02	08	04		Surface Soil	EA	EA
	02	08	05		Sub-Surface Soil	EA	EA
	02	08	06		Sediment/Sludge	EA	EA
	02	08	07		Other Contaminated Media	EA	EA
	02	08	08		Sample Shipping and Handling	EA	EA
	02	08	9x		Other (Use Numbers 90-99)		
	02	09			Laboratory Chemical Analysis	EA	EA
	02	09	01		Air/Industrial Hygiene Analysis	EA	EA
	02	09	02		General Water Quality and Wastewater Analysis	EA	EA
	02	09	03		Priority Pollutant Analysis (all media)	EA	EA
	02	09	04		Biomonitoring and Bioassay Analysis	EA	EA
	02	09	05		Hazardous Waste (RCRA) Analysis	EA	EA
	02	09	06		Miscellaneous Waste Analysis	EA	EA

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	02	09	07		Soil and Sediment Analysis	EA	EA
	02	09	9x		Other (Use Numbers 90-99)		
	02	10			Radioactive Waste Analysis	EA	EA
	02	10	01		Rad Analytical Animal Tissue/Bone	EA	EA
	02	10	02		Rad Analytical Air	EA	EA
	02	10	03		Rad Analytical Liquid	EA	EA
	02	10	04		Rad Analytical Urine/Feces	EA	EA
	02	10	05		Rad Analytical Vegetation/Sediment/Soil	EA	EA
	02	10	06		Rad Analytical Miscellaneous	EA	EA
	02	10	9x		Other (Use Numbers 90-99)		
	02	11			Geotechnical Testing	EA	EA
	02	11	01		Classification	EA	EA
	02	11	02		Shear Strength	EA	EA
	02	11	03		Consolidation	EA	EA
	02	11	04		Permeability	EA	EA
	02	11	05		Geosynthetic Friction Testing	EA	EA
	02	11	06		Field Tests	EA	EA
	02	11	07		Sample Shipping and Handling	EA	EA
	02	11	08		High Resolution Seismic Survey	EA	EA
	02	11	09		Site Characterization and Analysis Penetrometer System (SCAPS)	EA	EA
	02	11	9X		Other (Use Numbers 90-99)		
	02	12			Geotechnical Instrumentation	EA	EA
	02	12	01		Piezometers	EA	EA
	02	12	02		Inclinometers	EA	EA
	02	12	03		Settlement Gauges	EA	EA
	02	12	04		Tiltmeters	EA	EA
	02	12	05		Vadose Zone Monitoring	EA	EA
	02	12	06		Sample Shipping and Handling	EA	EA
	02	12	9x		Other (Use Numbers 90-99)		
	02	13			On-Site Laboratory Facilities	EA	EA
	02	13	01		Mobilization	EA	EA
	02	13	02		Rental/Ownership/Operation	MO	MO
	02	13	03		Lab Equipment/Furnishings/Supplies	MO	MO
	02	13	04		Lab Personnel	EA	EA
	02	13	05		Demobilization	EA	EA
	02	13	9x		Other (Use Number 90-99)		
	02	14			Off-Site Laboratory Facilities	EA	EA
	02	14	9x		Other (Use Numbers 90-99)		
	02	9X			Other (Use Numbers 90-99)		
	03				SITEWORK		
	03	01			Demolition	SY	M2
	03	01	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	03	02			Clearing and Grubbing	ACR	HEC
	03	02	9x		Other (Use Numbers 90-99)		
	03	03			Earthwork	CY	M3
	03	03	01		Rock Excavation	CY	M3
	03	03	02		Excavation/Fill	CY	M3
	03	03	03		Backfill	CY	M3
	03	03	04		Borrow	CY	M3
	03	03	05		Hauling	CY	M3
	03	03	06		Spreading	CY	M3
	03	03	07		Grading	SY	M2
	03	03	08		Compaction	CY	M3
	03	03	09		Scarification	CY	M3
	03	03	10		Harrowing	CY	M3
	03	03	11		Tracking	CY	M3
	03	03	12		Contour Furrowing	CY	M3
	03	03	13		Stockpiling	CY	M3
	03	03	14		Topsoil	CY	M3
	03	03	15		Settlement Markers	EA	EA
	03	03	16		Stripping	CY	M3
	03	03	9x		Other (Use Numbers 90-99)		
	03	04			Roads/Parking/Curbs/Walks	SY	M2
	03	04	01		Bituminous Surfacing	TON	MT
	03	04	02		Prime Coat/Tack Coat	GAL	LIT
	03	04	03		Aggregate Surfacing	TON	MT
	03	04	04		Concrete Surfacing	CY	M3
	03	04	05		Base Courses	TON	MT
	03	04	06		Geotextile Fabric	SY	M2
	03	04	07		Guard Rails	LF	M
	03	04	08		Curbs and Gutters	LF	M
	03	04	09		Sidewalks	SF	M2
	03	04	10		Signs	EA	EA
	03	04	11		Striping	LF	M
	03	04	12		Barricades	EA	EA
	03	04	9x		Other (Use Numbers 90-99)		
	03	05			Fencing	LF	M
	03	05	01		Fencing	LF	M
	03	05	02		Gates	EA	EA
	03	05	9x		Other (Use Numbers 90-99)		
	03	06			Electrical Distribution	LF	M
	03	06	01		Relocations	LF	M
	03	06	02		Power Distribution	LF	M
	03	06	03		Site Lighting Distribution	LF	M
	03	06	04		Site Lighting Fixtures	EA	EA
	03	06	05		Transformers	EA	EA
	03	06	06		Connections/Fees	EA	EA
	03	06	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	03	07			Telephone/Communication Distribution	LF	M
	03	07	01		Telephone Distribution	LF	M
	03	07	02		Communication Systems	EA	EA
	03	07	03		Alarms	EA	EA
	03	07	04		Relocations	LF	M
	03	07	05		Connections/Fees	EA	EA
	03	07	30		Tests	EA	EA
	03	07	9x		Other (Use Numbers 90-99)		
	03	08			Water/Sewer/Gas Distribution	LF	M
	03	08	01		Water Distribution	LF	M
	03	08	02		Sanitary Sewer Collection	LF	M
	03	08	03		Gas Distribution	LF	M
	03	08	04		Relocations	LF	M
	03	08	05		Connections/Fees	EA	EA
	03	08	30		Tests	EA	EA
	03	08	9x		Other (Use Numbers 90-99)		
	03	09			Steam and Condensate Distribution	LF	M
	03	09	01		Steam Distribution	LF	M
	03	09	02		Condensate Distribution	LF	M
	03	09	03		Relocations	LF	M
	03	09	04		Connections/Fees	EA	EA
	03	09	30		Tests	EA	EA
	03	09	9x		Other (Use Numbers 90-99)		
	03	10			Fuel Line Distribution	LF	M
	03	10	01		Fuel Line Distribution	LF	M
	03	10	02		Relocations	LF	M
	03	10	03		Connections/Fees	EA	EA
	03	10	30		Tests	EA	EA
	03	10	9x		Other (Use Numbers 90-99)		
	03	11			Storm Drainage/Subdrainage	LF	M
	03	11	01		Pipe	LF	M
	03	11	02		Manholes	EA	EA
	03	11	03		Inlets	EA	EA
	03	11	04		Drainage Structures	EA	EA
	03	11	30		Tests	EA	EA
	03	11	9x		Other (Use Numbers 90-99)		
	03	12			Permanent Cover Structure Over Contaminated Area	SF	M2
	03	12	9x		Other (Use Numbers 90-99)		
	03	13			Development of Borrow Pit/Haul Roads	ACR	HEC
	03	13	9x		Other (Use Numbers 90-99)		
	03	14			Fuel Storage Tanks (New)	EA	EA
	03	14	01		Above Ground Tanks	EA	EA
	03	14	02		Underground Tanks	EA	EA
	03	14	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	03	9X			Other (Use Numbers 90-99)		
	04				ORDNANCE & EXPLOSIVE - CHEMICAL WARFARE MATERIAL (OE-CWM) REMOVAL AND DESTRUCTION		
	04	01			Ordnance Removal and Destruction	ACR	HEC
	04	01	01		Demolition for OE Removal	EA	EA
	04	01	02		Brush Clearing with OE	ACR	HEC
	04	01	03		Blast Mats	EA	EA
	04	01	04		Blast Shields	EA	EA
	04	01	05		Surface Sweep (Visual)	ACR	HEC
	04	01	06		Surface Sweep (Magnetometer)	ACR	HEC
	04	01	07		Surface Sweep (Mag & Flag)	ACR	HEC
	04	01	08		Excavate by Hand 0' - 2' Depth	ACR	HEC
	04	01	09		Excavate with Heavy Equipment > 2' Depth	ACR	HEC
	04	01	10		Sifting	CY	M3
	04	01	11		Removal of Chemical Warfare Material (CWM)	EA	EA
	04	01	12		OE On-Site Destruction	EA	EA
	04	01	13		OE Off-Site Destruction Transportation to DOD Facility	EA	EA
	04	01	14		Bunkers (Temporary)	EA	EA
	04	01	9x		Other (Use Numbers 90-99)		
	04	9x			Other (Use Numbers 90-99)		
	05				SURFACE WATER COLLECTION AND CONTROL		
	05	01			Berms/Dikes	LF	M
	05	01	01		Rock Excavation	CY	M3
	05	01	02		Excavation/Fill	CY	M3
	05	01	03		Backfill	CY	M3
	05	01	04		Borrow	CY	M3
	05	01	05		Hauling	CY	M3
	05	01	06		Spreading	CY	M3
	05	01	07		Grading	SY	M2
	05	01	08		Compaction	CY	M3
	05	01	09		Scarification	CY	M3
	05	01	10		Harrowing	CY	M3
	05	01	11		Tracking	CY	M3
	05	01	12		Contour Furrowing	CY	M3
	05	01	13		Stockpiling	CY	M3
	05	01	14		Topsoil	CY	M3
	05	01	15		Settlement Markers	EA	EA
	05	01	16		Stripping	CY	M3
	05	01	17		Rip Rap	TON	MT
	05	01	9x		Other (Use Numbers 90-99)		
	05	02			Floodwalls	SF	M2
	05	02	01		Excavation	CY	M3
	05	02	02		Backfill	CY	M3
	05	02	03		Concrete	CY	M3
	05	02	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	05	03			Levees	LF	M
	05	03	01		Rock Excavation	CY	M3
	05	03	02		Excavation/Fill	CY	M3
	05	03	03		Backfill	CY	M3
	05	03	04		Borrow	CY	M3
	05	03	05		Hauling	CY	M3
	05	03	06		Spreading	CY	M3
	05	03	07		Grading	SY	M2
	05	03	08		Compaction	CY	M3
	05	03	09		Scarification	CY	M3
	05	03	10		Harrowing	CY	M3
	05	03	11		Tracking	CY	M3
	05	03	12		Contour Furrowing	CY	M3
	05	03	13		Stockpiling	CY	M3
	05	03	14		Topsoil	CY	M3
	05	03	15		Settlement Markers	EA	EA
	05	03	16		Stripping	CY	M3
	05	03	17		Rip Rap	TON	MT
	05	03	9x		Other (Use Numbers 90-99)		
	05	04			Terraces and Benches	LF	M
	05	04	01		Rock Excavation	CY	M3
	05	04	02		Excavation/Fill	CY	M3
	05	04	03		Backfill	CY	M3
	05	04	04		Borrow	CY	M3
	05	04	05		Hauling	CY	M3
	05	04	06		Spreading	CY	M3
	05	04	07		Grading	SY	M2
	05	04	08		Compaction	CY	M3
	05	04	09		Scarification	CY	M3
	05	04	10		Harrowing	CY	M3
	05	04	11		Tracking	CY	M3
	05	04	12		Contour Furrowing	CY	M3
	05	04	13		Stockpiling	CY	M3
	05	04	14		Topsoil	CY	M3
	05	04	15		Settlement Markers	EA	EA
	05	04	16		Stripping	CY	M3
	05	04	17		Rip Rap	TON	MT
	05	04	9x		Other (Use Numbers 90-99)		
	05	05			Channels/Waterways (Soil/Rock)	LF	M
	05	05	01		Rock Excavation	CY	M3
	05	05	02		Excavation/Fill	CY	M3
	05	05	03		Backfill	CY	M3
	05	05	04		Borrow	CY	M3
	05	05	05		Hauling	CY	M3
	05	05	06		Spreading	CY	M3
	05	05	07		Grading	SY	M2
	05	05	08		Compaction	CY	M3
	05	05	09		Scarification	CY	M3
	05	05	10		Harrowing	CY	M3
	05	05	11		Tracking	CY	M3
	05	05	12		Contour Furrowing	CY	M3

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	05	05	13		Stockpiling	CY	M3
	05	05	14		Topsoil	CY	M3
	05	05	15		Settlement Markers	EA	EA
	05	05	16		Stripping	CY	M3
	05	05	17		Rip Rap	TON	MT
	05	05	9x		Other (Use Numbers 90-99)		
	05	06			Chutes or Flumes	LF	M
	05	06	01		Concrete	CY	M3
	05	06	02		Bituminous	TON	MT
	05	06	03		Rip Rap	TON	MT
	05	06	04		Gabions	CY	M3
	05	06	9x		Other (Use Numbers 90-99)		
	05	07			Sediment Barriers	LF	M
	05	07	01		Silt Fence	LF	M
	05	07	02		Straw Bales	LF	M
	05	07	9x		Other (Use Numbers 90-99)		
	05	08			Storm Drainage	LF	M
	05	08	01		Pipe	LF	M
	05	08	02		Structures	EA	EA
	05	08	03		Gabions	CY	M3
	05	08	04		Rip Rap	TON	MT
	05	08	9x		Other (Use Numbers 90-99)		
	05	09			Lagoons/Basins/Tanks/Dikes/Pump System	ACR	HEC
	05	09	01		Excavation	CY	M3
	05	09	02		Berm Embankment and Compaction	CY	M3
	05	09	03		Impervious Clay Liner	CY	M3
	05	09	04		Bentonite Liner	CY	M3
	05	09	05		Concrete Liner	SY	M2
	05	09	06		Geonet	SY	M2
	05	09	07		Geotextile	SY	M2
	05	09	08		Geomembrane (Synthetic)	SY	M2
	05	09	09		Geocomposite	SY	M2
	05	09	10		Granular Drainage Layer	TON	MT
	05	09	11		Slope Protection	SY	M2
	05	09	12		Floating Cover	SY	M2
	05	09	13		Intake/Outlet Structure	EA	EA
	05	09	14		Spillway	EA	EA
	05	09	15		Storage Tanks w/Alarms	EA	EA
	05	09	16		Piping	LF	M
	05	09	17		Manholes, Valves, Boxes	EA	EA
	05	09	18		Hose	LF	M
	05	09	19		Holding Tank	EA	EA
	05	09	20		Lift Station/Controls and Instrumentation	EA	EA
	05	09	21		Drainage (Gravity)	EA	EA
	05	09	30		Tests	EA	EA
	05	09	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	05	10			Pumping/Draining/Collection	MGA	KLI
	05	10	01		Pumping	GAL	LIT
	05	10	02		Draining (Gravity)	GAL	LIT
	05	10	03		Collection	GAL	LIT
	05	10	9x		Other (Use Numbers 90-99)		
	05	11			Transport to Treatment Plant	MGA	KLI
	05	11	9x		Other (Use Numbers 90-99)		
	05	12			Earthwork	CY	M3
	05	12	01		Rock Excavation	CY	M3
	05	12	02		Excavation/Fill	CY	M3
	05	12	03		Backfill	CY	M3
	05	12	04		Borrow	CY	M3
	05	12	05		Hauling	CY	M3
	05	12	06		Spreading	CY	M3
	05	12	07		Grading	SY	M2
	05	12	08		Compaction	CY	M3
	05	12	09		Scarification	CY	M3
	05	12	10		Harrowing	CY	M3
	05	12	11		Tracking	CY	M3
	05	12	12		Contour Furrowing	CY	M3
	05	12	13		Stockpiling	CY	M3
	05	12	14		Topsoil	CY	M3
	05	12	15		Settlement Markers	EA	EA
	05	12	16		Stripping	CY	M3
	05	12	17		Rip Rap	TON	MT
	05	12	9x		Other (Use Numbers 90-99)		
	05	13			Erosion Control	ACR	HEC
	05	13	01		Seeding/Mulch/Fertilizer	ACR	HEC
	05	13	02		Sodding	SY	M2
	05	13	03		Erosion Control Fabric	SY	M2
	05	13	04		Shrubs, Trees, Ground Cover	EA	EA
	05	13	05		Topsoil	CY	M3
	05	13	06		Mowing During Construction	ACR	HEC
	05	13	9x		Other (Use Numbers 90-99)		
	05	14			Development of Borrow Pit/Haul Roads	ACR	HEC
	05	14	9x		Other (Use Numbers 90-99)		
	05	9X			Other (Use Numbers 90-99)		
	06				GROUNDWATER COLLECTION AND CONTROL		
	06	01			Extraction and Injection Wells	EA	EA
	06	01	01		Drill Setup	EA	EA
	06	01	02		Well Drilling	LF	M
	06	01	03		Handling of Cuttings/Water	GAL	LIT
	06	01	04		Casing	LF	M

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	06	01	05		Casing Removal	LF	M
	06	01	06		Gravel Pack Material	CF	M3
	06	01	07		Grout	CF	M3
	06	01	08		Wet Well	EA	EA
	06	01	09		Well Development/Testing	EA	EA
	06	01	10		Well Screen	LF	M
	06	01	11		Capping	EA	EA
	06	01	12		Well House	EA	EA
	06	01	13		Pitless Adapter	EA	EA
	06	01	14		Well Pump and Controls/Instrumentation	EA	EA
	06	01	15		Well Piping, Valves, Fittings	LF	M
	06	01	16		Flow Meter	EA	EA
	06	01	17		Holding Tank	EA	EA
	06	01	18		Electrical	EA	EA
	06	01	19		Operation During Construction	MO	MO
	06	01	20		Monitoring Well Abandonment	EA	EA
	06	01	30		Tests	EA	EA
	06	01	9x		Other (Use Numbers 90-99)		
	06	02			Subsurface Drainage/Collection	LF	M
	06	02	01		Trench Excavation/Soil/Rock	CY	M3
	06	02	02		Dewatering for Construction	GAL	LIT
	06	02	03		Sheeting and Shorting Trench	SF	M2
	06	02	04		Drain Piping, Fittings	LF	M
	06	02	05		Aggregate Filter Material	TON	MT
	06	02	06		Geotextile Fabrics	SF	M2
	06	02	07		Backfill	CY	M3
	06	02	08		Synthetic Liner	SY	M2
	06	02	09		Manholes	EA	EA
	06	02	10		Observation Risers	EA	EA
	06	02	11		Lift Station, Pumps and Controls/Instrumentation	EA	EA
	06	02	12		Holding Tank	EA	EA
	06	02	13		Well Points	LF	M
	06	02	30		Tests	EA	EA
	06	02	9x		Other (Use Numbers 90-99)		
	06	03			Slurry Walls	SF	M2
	06	03	01		Excavation	CY	M3
	06	03	02		Bentonite Slurry	CY	M3
	06	03	03		Soil-Bentonite Slurry	CY	M3
	06	03	04		Slurry Mixing/Circulation	CY	M3
	06	03	05		Cement-Bentonite Slurry	CY	M3
	06	03	06		Fill Material	CY	M3
	06	03	07		Backfill Placing	CY	M3
	06	03	30		Tests	EA	EA
	06	03	9x		Other (Use Numbers 90-99)		
	06	04			Grout Curtain	SF	M2
	06	04	01		Drill Grout Holes	LF	M
	06	04	02		Grout Tube	LF	M
	06	04	03		Grout Injection	CF	M3
	06	04	04		Vibrating Beam Grout Injection	CF	M3
	06	04	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	06	05			Sheet Piling	SF	M2
	06	05	01		Driven Sheet Piling (left in place)	SF	M2
	06	05	02		Driven Sheet Piling (pulled)	SF	M2
	06	05	9x		Other (Use Numbers 90-99)		
	06	06			Lagoons/Basins/Tanks/Dikes/Pump System	ACR	HEC
	06	06	01		Excavation	CY	M3
	06	06	02		Berm Embankment and Compaction	CY	M3
	06	06	03		Impervious Clay Liner	CY	M3
	06	06	04		Bentonite Liner	CY	M3
	06	06	05		Concrete Liner	SY	M2
	06	06	06		Geonet	SY	M2
	06	06	07		Geotextile	SY	M2
	06	06	08		Geomembrane (Synthetic)	SY	M2
	06	06	09		Geocomposite	SY	M2
	06	06	10		Granular Drainage Layer	TON	MT
	06	06	11		Slope Protection	SY	M2
	06	06	12		Floating Cover	SY	M2
	06	06	13		Intake/Outlet Structure	EA	EA
	06	06	14		Spillway	EA	EA
	06	06	15		Storage Tanks w/Alarms	EA	EA
	06	06	16		Piping	LF	M
	06	06	17		Manholes, Valves, Boxes	EA	EA
	06	06	18		Hose	LF	M
	06	06	19		Holding Tank	EA	EA
	06	09	20		Lift Station/Controls and Instrumentation	EA	EA
	06	09	21		Drainage (Gravity)	EA	EA
	06	06	30		Tests	EA	EA
	06	06	9x		Other (Use Numbers 90-99)		
	06	07			Pumping/Collection	MGA	KLI
	06	07	01		Pumping	GAL	LIT
	06	07	02		Draining (Gravity)	GAL	LIT
	06	07	03		Collection	GAL	LIT
	06	07	9x		Other (Use Numbers 90-99)		
	06	08			Transport to Treatment Plant	MGA	KLI
	06	08	9x		Other (Use Numbers 90-99)		
	06	09			Development of Borrow Pit/Haul Roads	ACR	HEC
	06	09	9x		Other (Use Numbers 90-99)		
	06	9x			Other (Use Numbers 90-99)		
	07				AIR POLLUTION/GAS COLLECTION AND CONTROL		
	07	01			Gas/Vapor Collection Trench System	LF	M
	07	01	01		Trench Excavation/Soil/Rock	CY	M3
	07	01	02		Sheeting and Shoring Trench	SF	M2
	07	01	03		Vertical Piping, Fittings	LF	M

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	07	01	04		Aggregate Filter Material	TON	MT
	07	01	05		Backfill	CY	M3
	07	01	06		Protective Trench Cover	LF	M
	07	01	07		Monitoring Probes	EA	EA
	07	01	08		Synthetic Membrane	SF	M2
	07	01	09		Gas Collection Header/Fittings/Tanks	LF	M
	07	01	10		Vacuum Blower/Compressor	EA	EA
	07	01	11		Flare/Flame Arrestor	EA	EA
	07	01	12		Valves, Boxes, Manholes	EA	EA
	07	01	13		Gas Control/Suppression	EA	EA
	07	01	30		Tests	EA	EA
	07	01	9x		Other (Use Numbers 90-99)		
	07	02			Gas/Vapor Collection Well System	EA	EA
	07	02	01		Well Drilling	LF	M
	07	02	02		Handling of Cuttings/Water	GAL	LIT
	07	02	03		Casing	LF	M
	07	02	04		Well Screen	LF	M
	07	02	05		Drilling Mud	CY	M3
	07	02	06		Sand	CF	M3
	07	02	07		Grout Cement	CF	M3
	07	02	08		Well House	EA	EA
	07	02	09		Aggregate Filter Material	TON	MT
	07	02	10		Vertical Piping, Fittings	LF	M
	07	02	11		Monitoring Probes	EA	EA
	07	02	12		Gas Collection Header/Fittings/Tanks	LF	M
	07	02	13		Vacuum Blower/Compressor	EA	EA
	07	02	14		Flare/Flame Arrestor	EA	EA
	07	02	15		Valves, Boxes, Manholes	EA	EA
	07	02	16		Gas Control/Suppression	EA	EA
	07	02	30		Tests	EA	EA
	07	02	9x		Other (Use Numbers 90-99)		
	07	03			Gas/Vapor Collection at Lagoon Cover	SY	M2
	07	03	01		Flexible Gas Collection Hose	LF	M
	07	03	02		Gas Collection Chambers/Tank	EA	EA
	07	03	03		Vacuum Blower/Compressor	EA	EA
	07	03	04		Flare/Flame Arrestor	EA	EA
	07	03	05		Valves, Boxes, Manholes	EA	EA
	07	03	06		Gas Control/Suppression	EA	EA
	07	03	30		Tests	EA	EA
	07	03	9x		Other (Use Numbers 90-99)		
	07	04			Fugitive Dust/Vapor/Gas Emissions Control	ACR	HEC
	07	04	01		Sprayed Chemical Dust Suppressants	ACR	HEC
	07	04	02		Wind Fences/Screens	LF	M
	07	04	03		Synthetic Covers over Waste Piles	SF	M2
	07	04	04		Water Spraying	ACR	HEC
	07	04	9x		Other (Use Numbers 90-99)		
	07	9x			Other (Use Numbers 90-99)		
	08				SOLIDS COLLECTION AND CONTAINMENT		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	08	01			Contaminated Soil Collection	CY	M3
	08	01	01		Rock Excavation	CY	M3
	08	01	02		Excavation	CY	M3
	08	01	03		Hauling	CY	M3
	08	01	04		Stockpiling	CY	M3
	08	01	9x		Other (Use Numbers 90-99)		
	08	02			Waste Containment, Portable (Furnish/Fill)	CY	M3
	08	02	01		Bulk Containers/Roll-Offs	CY	M3
	08	02	02		Drums	EA	EA
	08	02	03		Bags	CY	M3
	08	02	04		Liners	EA	EA
	08	02	9x		Other (Use Numbers 90-99)		
	08	03			Transport to Treatment Plant	CY	M3
	08	03	9x		Other (Use Numbers 90-99)		
	08	04			Radioactive Specific Waste Containment (Furnish/Fill)	CY	M3
	08	04	01		LSA (Low Specific Activity) Shipping Containers	EA	EA
	08	04	02		Miscellaneous Type A Containers	EA	EA
	08	04	03		Type B Shipping Containers	EA	EA
	08	04	04		Temporary On-Site Storage	EA	EA
	08	04	9x		Other (Use Numbers 90-99)		
	08	05			Capping of Contaminated Area/Waste Pile (Soil/Asphalt Cap)	ACR	HEC
	08	05	01		Gas Collection Layer	CY	M3
	08	05	02		Gas Vent Pipes	EA	EA
	08	05	03		Impervious Clay Layer	CY	M3
	08	05	04		Bentonite Layer	CY	M3
	08	05	05		Granular Drainage Layer	TON	MT
	08	05	06		Geonet	SY	M2
	08	05	07		Geotextile	SY	M2
	08	05	08		Geomembrane (Synthetic)	SY	M2
	08	05	09		Geocomposite	SY	M2
	08	05	10		Geogrid	SY	M2
	08	05	11		Seeding/Mulch/Fertilizer	ACR	HEC
	08	05	12		Erosion Control Fabric	SY	M2
	08	05	13		Soil/Topsoil Cover Layer	CY	M3
	08	05	14		Crushed Rock	TON	MT
	08	05	15		Drainage/Leachate Piping	LF	M
	08	05	16		Manholes/Sumps	EA	EA
	08	05	17		Lift Station, Pumps and Controls/Instrumentation	EA	EA
	08	05	18		Test Fill Section	EA	EA
	08	05	19		Radon Barrier	SY	M2
	08	05	20		Asphalt/Concrete Paving Cover	SY	M2
	08	05	30		Tests	EA	EA
	08	05	9x		Other (Use Numbers 90-99)		
	08	06			Nuclear Waste Densification (Dynamic Compaction)	CY	M3
	08	06	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	08	07			Development of Borrow Pit/Haul Roads	ACR	HEC
	08	07	9x		Other (Use Numbers 90-99)		
	08	9x			Other (Use Numbers 90-99)		
	09				LIQUIDS/SEDIMENTS/SLUDGES COLLECTION AND CONTAINMENT		
	09	01			Dredging/Excavating	CY	M3
	09	01	01		Hydraulic	CY	M3
	09	01	02		Mechanical	CY	M3
	09	01	03		Pneumatic	CY	M3
	09	01	9x		Other (Use Numbers 90-99)		
	09	02			Industrial Vacuuming	CY	M3
	09	02	9x		Other (Use Numbers 90-99)		
	09	03			Waste Containment, Portable (Furnish/Fill)	MGA	KLI
	09	03	01		Bulk Liquid Containers/Roll-Offs	GAL	LIT
	09	03	02		Drums	GAL	LIT
	09	03	03		Liners	EA	EA
	09	03	9x		Other (Use Numbers 90-99)		
	09	04			Transport to Treatment Plant	MGA	KLI
	09	04	9x		Other (Use Numbers 90-99)		
	09	05			Radioactive Specific Waste Containment (Furnish/Fill)	MGA	KLI
	09	05	01		LSA (Low Specific Activity) Shipping Containers	EA	EA
	09	05	02		Miscellaneous Type A Containers	EA	EA
	09	05	03		Type B Shipping Containers	EA	EA
	09	05	04		Temporary On-Site Storage	EA	EA
	09	05	9x		Other (Use Numbers 90-99)		
	09	06			Pumping/Draining/Collection	MGA	KLI
	09	06	01		Pumping	GAL	LIT
	09	06	02		Draining (Gravity)	GAL	LIT
	09	06	03		Collection	GAL	LIT
	09	06	9x		Other (Use Numbers 90-99)		
	09	07			Lagoons/Basins/Tanks/Dikes/Pump System	ACR	HEC
	09	07	01		Excavation	CY	M3
	09	07	02		Berm Embankment and Compaction	CY	M3
	09	07	03		Impervious Clay Liner	CY	M3
	09	07	04		Bentonite Liner	CY	M3
	09	07	05		Concrete Liner	SY	M2
	09	07	06		Geonet	SY	M2
	09	07	07		Geotextile	SY	M2
	09	07	08		Geomembrane (Synthetic)	SY	M2
	09	07	09		Geocomposite	SY	M2
	09	07	10		Granular Drainage Layer	TON	MT
	09	07	11		Slope Protection	SY	M2

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	09	07	12		Floating Cover	SY	M2
	09	07	13		Intake/Outlet Structure	EA	EA
	09	07	14		Spillway	EA	EA
	09	07	15		Storage Tanks w/Alarms	EA	EA
	09	07	16		Piping	LF	M
	09	07	17		Manholes, Valves, Boxes	EA	EA
	09	07	18		Hose	LF	M
	09	07	19		Holding Tank	EA	EA
	09	07	20		Lift Station/Controls and Instrumentation	EA	EA
	09	07	21		Drainage (Gravity)	EA	EA
	09	07	30		Tests	EA	EA
	09	07	9x		Other (Use Numbers 90-99)		
	09	08			Development of Borrow Pit/Haul Roads	ACR	HEC
	09	08	9x		Other (Use Numbers 90-99)		
	09	9x			Other (Use Numbers 90-99)		
	10				DRUMS/TANKS/STRUCTURES/MISCELLANEOUS DEMOLITION AND REMOVAL		
	10	01			Drum Removal	EA	EA
	10	01	01		Machine Excavation (Buried Drums)	CY	M3
	10	01	02		Hand Excavation (Buried Drums)	CY	M3
	10	01	03		Handling and Removing	EA	EA
	10	01	04		Cleaning	EA	EA
	10	01	05		Crushing/Shredding	EA	EA
	10	01	06		Drum Overpacks	EA	EA
	10	01	07		Pump Liquids and Sludge	GAL	LIT
	10	01	08		Purge Drums	EA	EA
	10	01	09		Cut Drums	EA	EA
	10	01	9x		Other (Use Numbers 90-99)		
	10	02			Tank Removal	EA	EA
	10	02	01		Machine Excavation (Buried Tanks)	CY	M3
	10	02	02		Hand Excavation (Buried Tanks)	CY	M3
	10	02	03		Tank Cutting/Demolition	EA	EA
	10	02	04		Handling and Removing	EA	EA
	10	02	05		Cleaning	EA	EA
	10	02	06		Crushing	EA	EA
	10	02	07		Pump Liquids and Sludge	GAL	LIT
	10	02	08		Purge Tanks	EA	EA
	10	02	09		Concrete Vault Removal	EA	EA
	10	02	9x		Other (Use Numbers 90-99)		
	10	03			Structure Removal	SF	M2
	10	03	01		Decontamination	SF	M2
	10	03	02		Demolition	SF	M2
	10	03	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	10	04			Asbestos Abatement	SF	M2
	10	04	01		Preparatory Abatement Work	SF	M2
	10	04	02		Abatement	SF	M2
	10	04	03		Post-Abatement Work	SF	M2
	10	04	9x		Other (Use Numbers 90-99)		
	10	05			Piping and Pipeline Removal	LF	M
	10	05	01		Machine Excavation	CY	M3
	10	05	02		Hand Excavation	CY	M3
	10	05	03		Concrete Pipe Pits	CY	M3
	10	05	04		Pipe Removal	LF	M
	10	05	05		Handling	LF	M
	10	05	9x		Other (Use Numbers 90-99)		
	10	06			Radioactive Specific Waste Containment (Furnish/Fill)	CY	M3
	10	06	01		LSA (Low Specific Activity) Shipping Containers	EA	EA
	10	06	02		Miscellaneous Type A Containers	EA	EA
	10	06	03		Type B Shipping Containers	EA	EA
	10	06	04		Temporary On-Site Storage	EA	EA
	10	06	9x		Other (Use Numbers 90-99)		
	10	07			Miscellaneous Items	ACR	HEC
	10	07	01		Debris Removal	ACR	HEC
	10	07	02		Pressurized Gas Cylinders Removal	EA	EA
	10	07	03		Pavement Removal	SY	M2
	10	07	9x		Other (Use Numbers 90-99)		
	10	08			Contaminated Paint Removal	SF	M2
	10	08	01		Physical Removal	SF	M2
	10	08	02		Chemical Removal	SF	M2
	10	08	03		Thermal Removal	SF	M2
	10	08	04		Encapsulation	SF	M2
	10	08	9x		Other (Use Numbers 90-99)		
	10	9x			Other (Use Numbers 90-99)		
	11				BIOLOGICAL TREATMENT		
	11	01			Activated Sludge (Seq Batch Reactors)	MGA	KLI
	11	01	01		Solids Preparation and Handling	CY	M3
	11	01	02		Liquids Preparation and Handling	GAL	LIT
	11	01	03		Vapor/Gas Preparation and Handling	CF	M3
	11	01	04		Pads/Foundations/Spill Control	SF	M2
	11	01	05		Mobilization/Setup of Portable Treatment Plant	EA	EA
	11	01	06		Startup	EA	EA
	11	01	07		Demobilization of Portable Treatment Plant	EA	EA
	11	01	08		Ownership/O&M/Rental of Portable Treatment Plant During Constr	MO	MO
	11	01	09		O&M of Permanent Treatment Plant During Construction	MO	MO
	11	01	10		Testing	EA	EA
	11	01	11		Permits	EA	EA
	11	01	12		Training	EA	EA
	11	01	13		Final Closure	EA	EA
	11	01	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number				DESCRIPTION	UOM English Metric	
331XX	11	02		* Rotating Biological Contractors	MGA	KLI
	11	03		* Land Treatment/Farming (Solid Phase Biodegradation)	CY	M3
	11	04		* In-Situ Biodegradation/Bioreclamation	CY	M3
	11	05		* Trickling Filters	MGA	KLI
	11	06		* Biological Lagoons	MGA	KLI
	11	07		* Composting	CY	M3
	11	08		* Sludge Stabilization - Aerobic	CY	M3
	11	09		* Sludge Stabilization - Anaerobic	CY	M3
	11	10		* Genetically Engineered Organisms (White Rot Fungus)	CY	M3
	11	11		* Slurry Biodegradation	CY	M3
	11	12		* Bioventing	SF	M2
	11	13		* Bioslurping	SF	M2
	11	14		*Biopile (Heap Pile Remediation)	CY	M3
	11	50		Construction of Permanent Plant Facility	EA	EA
	11	50	01	Substructure	SF	M2
	11	50	02	Superstructure	SF	M2
	11	50	03	Exterior Closure	SF	M2
	11	50	04	Roofing	SF	M2
	11	50	05	Interior Construction	SF	M2
	11	50	06	Interior Finishes	SF	M2
	11	50	07	Conveying Systems	SF	M2
	11	50	08	Plumbing	SF	M2
	11	50	09	HVAC	SF	M2
	11	50	10	Fire Protection System	SF	M2
	11	50	11	Electric Power and Lighting	SF	M2
	11	50	12	Electrical Systems	SF	M2
	11	50	13	Equipment	SF	M2
	11	50	14	Furnishings	SF	M2
	11	50	15	Special Construction	SF	M2
	11	50	9X	Other (Use Numbers 90-99)		
	11	9x		Other (Use Numbers 90-99)		
				* NOTE: Add the items listed under 331XX 11 01		
	12			CHEMICAL TREATMENT		
	12	01		* Oxidation/Reduction	MGA	KLI
	12	02		* Solvent Extraction	MGA	KLI

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	12	03			* Chlorination	MGA	KLI
	12	04			* Ozonation	MGA	KLI
	12	05			* Ion Exchange	MGA	KLI
	12	06			* Neutralization	MGA	KLI
	12	07			* Chemical Hydrolysis	MGA	KLI
	12	08			* Ultraviolet Photolysis	MGA	KLI
	12	09			* Dehalogenation (Catalytic Dechlorination)	CY	M3
	12	10			* Alkali Metal Dechlorination	CY	M3
	12	11			* Alkali Metal/Polyethylene Glycol (A/PEG)	CY	M3
	12	12			* Base-Catalyzed Decomposition Process	CY	M3
	12	13			* Electrolysis	MGA	KLI
	12	14			* Vapor Recovery/Reuse (Internal Combustion Engine)	CF	M3
	12	50			**Construction of Permanent Plant Facility	EA	EA
	12	9x			Other (Use Numbers 90-99)		
					* NOTE: Add the items listed under 331XX 11 01		
					**NOTE: Add the items listed under 331XX 11 50		
	13				PHYSICAL TREATMENT		
	13	01			* Filtration/Ultrafiltration	MGA	KLI
	13	02			* Sedimentation	MGA	KLI
	13	03			* Straining	MGA	KLI
	13	04			* Coagulation/Flocculation/Precipitation	MGA	KLI
	13	05			* Equalization	MGA	KLI
	13	06			* Evaporation	MGA	KLI
	13	07			* Air Stripping	MGA	KLI
	13	08			* Steam Stripping	MGA	KLI
	13	09			* Soil Washing (Surfactant/Solvent)	CY	M3
	13	10			* Soil Flushing (Surfactant/Solvent)	CY	M3

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	13	11			* Solids Dewatering	CY	M3
	13	12			* Oil/Water Separation	MGA	KLI
	13	13			* Dissolved Air Floatation	MGA	KLI
	13	14			* Heavy Media Separation	CY	M3
	13	15			* Distillation	MGA	KLI
	13	16			* Chelation	MGA	KLI
	13	17			* Solvent Extraction	MGA	KLI
	13	18			* Supercritical Extraction	MGA	KLI
	13	19			* Carbon Adsorption - Gases	CF	M3
	13	20			* Carbon Adsorption - Liquids	MGA	KLI
	13	21			* Membrane Separation - Reverse Osmosis	MGA	KLI
	13	22			* Membrane Separation - Electrodialysis	MGA	KLI
	13	23			* Soil Vapor Extraction	CY	M3
	13	24			* Shredding	CY	M3
	13	25			* Aeration	CY	M3
	13	26			* Advanced Electrical Reactor	CY	M3
	13	27			* Low Level Waste (LLW) Compaction	CY	M3
	13	28			* Agglomeration	CY	M3
	13	29			* In-Situ Steam Extraction	MGA	KLI
	13	30			* Filter Presses	MGA	KLI
	13	31			* Lignin Adsorption/Sorptive Clays	CY	M3
	13	32			* Air Sparging	GAL	LIT
	13	50			**Construction of Permanent Plant Facility	EA	EA
	13	9x			Other (Use Numbers 90-99)		
					* NOTE: Add the items listed under 331XX 11 01.		
					**NOTE: Add the items listed under 331XX 11 50		
	14				THERMAL TREATMENT		
	14	01			* Incineration	CY	M3

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	14	02			* Low Temperature Thermal Desorption	CY	M3
	14	03			* Supercritical Water Oxidation	MGA	KLI
	14	04			* Molten Salt Destruction	CY	M3
	14	05			* Radio Frequency Heating	CY	M3
	14	06			* Solar Detoxification	CY	M3
	14	07			* High Temperature Thermal Desorption	CY	M3
	14	50			**Construction of Permanent Plant Facility	EA	EA
	14	9x			Other (Use Numbers 90-99)		
					* NOTE: Add the items listed under 331XX 11 01.		
					**NOTE: Add the items listed under 331XX 11 50		
	15				STABILIZATION/FIXATION/ENCAPSULATION		
	15	01			* Molten Glass	CY	M3
	15	02			* In-Situ Vitrification	CY	M3
	15	03			* In-Situ Pozzolan Process (Lime/Portland Cement)	CY	M3
	15	04			* Pozzolan Process (Lime/Portland Cement)	CY	M3
	15	05			* Asphalt-Based Encapsulation	CY	M3
	15	06			* Radioactive Waste Solidification (Grouting/Other)	CY	M3
	15	07			* Sludge Stabilization (Aggregate/Rock/Slag)	CY	M3
	15	50			**Construction of Permanent Plant	EA	EA
	15	9x			* Other (Use Numbers 90-99)		
					* NOTE: Add the items listed under 331XX 11 01.		
					**NOTE: Add the items listed under 331XX 11 50		
	16				RESERVED FOR FUTURE USE		
	17				DECONTAMINATION AND DECOMMISSIONING (D&D)		
	17	01			Pre-Decommissioning Operations	SF	M2
	17	01	01		Preparation of Decommissioning Plan	EA	EA
	17	01	02		Licensing	EA	EA
	17	01	03		Radioactivity Surveys	EA	EA
	17	01	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	17	02			Facility Shutdown Activities	SF	M2
	17	02	01		Plant Shutdown and Inspection	EA	EA
	17	02	02		Defueling and Transfer of Fuel to Temporary Spent Fuel Storage	EA	EA
	17	02	03		Drainage and Drying or Blowdown of all Systems not in Operation	EA	EA
	17	02	04		Samples for Radioactivity Inventory Characterization	EA	EA
	17	02	05		Disposal of System Fluids (water, oils,...)	GAL	LIT
	17	02	06		Disposal of Special System Fluids (D2O, sodium,...)	GAL	LIT
	17	02	07		Decontamination of Systems for Dose Reduction	EA	EA
	17	02	08		Disposal of Wastes from Decontamination	CF	M3
	17	02	09		Disposal of Combustible Material	CF	M3
	17	02	10		Disposal of Spent Resins	CF	M3
	17	02	11		Disposal of Other Wastes from Reactor Operations	CF	M3
	17	02	12		Isolation of Power Equipment	SF	M2
	17	02	13		Decon of Areas and Equip in all Bldgs to Reduce Controlled Area	SF	M2
	17	02	14		Mothballing	SF	M2
	17	02	15		Entombment	SF	M2
	17	02	9x		Other (Use Numbers 90-99)		
	17	03			Procurement of Equipment and Material	SF	M2
	17	03	01		Site Dismantling Equipment	EA	EA
	17	03	02		Radiation Protection and Health Physics Equipment	EA	EA
	17	03	03		Security and Maintenance Equipment for Long-Term Storage	EA	EA
	17	03	9x		Other (Use Numbers 90-99)		
	17	04			Dismantling Activities	SF	M2
	17	04	01		Decon of Areas and Equip in all Bldgs to Facilitate Dismantling	SF	M2
	17	04	02		Drainage of Spent Fuel Pool and Decontamination of Linings	SF	M2
	17	04	03		Zoning for Long-Term Storage	SF	M2
	17	04	04		Radioactive Inventory Categorization	SF	M2
	17	04	05		Dismantling and Transfer of Contam Equip and Mat to Contain Stor	SF	M2
	17	04	06		Isolation and Sealing of Containment Structure	SF	M2
	17	04	07		Layout of Dormancy Period Control Area	SF	M2
	17	04	08		Removal of Fuel Handling Equipment	SF	M2
	17	04	09		Design and Procurement of Special Tools for Dismantling	EA	EA
	17	04	10		Dismantling Operations on Reactor Vessels and Internals	EA	EA
	17	04	11		Removal of Primary and Auxiliary Systems	SF	M2
	17	04	12		Removal of Biological Shield	SF	M2
	17	04	13		Removal of Other Mat and Equip from Containment Structure	SF	M2
	17	04	14		Removal and Disposal of Asbestos	SF	M2
	17	04	15		Removal of Pool Linings	SF	M2
	17	04	16		Removal of Contamination from Areas and Structures in all Bldgs	SF	M2
	17	04	17		Radioactive Waste Characterization	EA	EA
	17	04	18		Radioactive Waste Characterization for Recycling	EA	EA
	17	04	19		Radioactive Waste Characterization for Final Disposal	EA	EA
	17	04	20		Personnel Training	EA	EA
	17	04	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	17	05			Research and Development (R&D)	SF	M2
	17	05	01		Literature Review	EA	EA
	17	05	02		Data Collection	EA	EA
	17	05	03		Considerations on Actual and Future Dismantling	EA	EA
	17	05	04		Decontamination Strategies/Techniques	EA	EA
	17	05	05		Status Review	EA	EA
	17	05	06		Development of New Dismantling Equipment	EA	EA
	17	05	07		Development or Use of New Decontamination Techniques	EA	EA
	17	05	08		Dev of Adapted Measurement Devices and Calc Techniques	EA	EA
	17	05	09		Development of Adapted Waste Treatment and Disposal Tech	EA	EA
	17	05	10		Research and Development on Remotely Operated Systems	EA	EA
	17	05	11		Simulation of Complicated Work on Model	EA	EA
	17	05	12		Robotics and Manipulators (R&D)	EA	EA
	17	05	9x		Other (Use Numbers 90-99)		
	17	06			Spent Fuel Handling	SF	M2
	17	06	01		Transfer of Fuel from Temp Storage to Intermediate Storage	EA	EA
	17	06	02		Intermediate Fuel Storage	EA	EA
	17	06	03		Dismantling/Disposal of Temporary Fuel Storage Facility	SF	M2
	17	06	04		Transfer of Fuel from Intermediate Storage to Reprocessing	EA	EA
	17	06	05		Reprocessing Costs	EA	EA
	17	06	06		Transfer and Disposal of Wastes from Reprocessing	CF	M3
	17	06	07		Transfer and Conditioning of Spent Fuel	CF	M3
	17	06	08		Transfer and Disposal of Spent Fuel	CF	M3
	17	06	9x		Other (Use Numbers 90-99)		
	17	07			Hot Cell Cleanup	SF	M2
	17	07	01		Radioactivity Survey	EA	EA
	17	07	02		Decon of Areas and Equip in Cell to Facilitate Dismantling	SF	M2
	17	07	03		Decon of Areas and Equip in Cell to Reduce Contam Levels	SF	M2
	17	07	04		Decontamination of Equipment for Transfer or Disposal	SF	M2
	17	07	05		Cell Equipment Modification	EA	EA
	17	07	06		Dismantling of Primary and Auxiliary Services to Cell	SF	M2
	17	07	07		Dismantling of In-Cell Equipment	EA	EA
	17	07	08		Transfer of Material and Equipment to Airlock Services	EA	EA
	17	07	09		Packaging and Preparation of Cell Waste in Airlock	CF	M3
	17	07	10		Transfer of Material from Airlock to Shipping Dock	CF	M3
	17	07	11		Cell Window Maintenance and Cleaning	EA	EA
	17	07	12		Cell Window Replacement/Refurbishment	EA	EA
	17	07	9x		Other (Use Numbers 90-99)		
	17	9x			Other (Use Numbers 90-99)		
	18				DISPOSAL (OTHER THAN COMMERCIAL)		
	18	01			*Landfill/Burial Ground/Trench/Pits	CY	M3
	18	02			* Above-Ground Vault	CY	M3
	18	03			* Underground Vault	CY	M3
	18	04			* Underground Mine/Shaft	CY	M3

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number				DESCRIPTION	UOM English Metric	
331XX	18	05		* Tanks	MGA	KLI
	18	06		* Pads (Tumulus/Retrievable Storage/Other)	CY	M3
	18	07		* Storage Bldgs/Protect Cover Struct/Other Bldgs and Struct	CY	M3
	18	08		* Cribs	CY	M3
	18	09		* Deep Well Injection	MGA	KLI
	18	10		* Incinerator	CY	M3
	18	15		**Construction of Permanent Disposal Facility		
	18	20		Container Handling	EA	EA
	18	20	9x	Other (Use Numbers 90-99)		
				* NOTE: Add the items listed under 331XX 11 01		
				**NOTE: Add the items listed und 331XX 11 50		
	18	21		Transportation to Storage/Disposal Facility	TON	MT
	18	21	01	Loading/Hauling/Unloading of Solids	TON	MT
	18	21	02	Pumping/Hauling of Liquids/Sediments/Sludges	GAL	LIT
	18	21	9x	Other (Use Numbers 90-99)		
	18	22		Disposal Fees and Taxes	TON	MT
	18	22	01	Landfill/Burial Grounds/Trench/Pits	TON	MT
	18	22	02	Above -Ground Vault	TON	MT
	18	22	03	Underground Vault	TON	MT
	18	22	04	Underground Mine/Shaft	TON	MT
	18	22	05	Tanks	GAL	LIT
	18	22	06	Pads (Tumulus/Retrievable Storage/Other)	TON	MT
	18	22	07	Storage Buildings/Protective Cover Structures/Other Bldgs and Struct	TON	MT
	18	22	08	Cribs	TON	MT
	18	22	09	Deep Well Injection	GAL	LIT
	18	22	10	Incineration	TON	MT
	18	22	9x	Other (Use Numbers 90-99)		
	18	23		Mixed Waste Storage Fees and Taxes	TON	MT
	18	23	9x	Other (Use Numbers 90-99)		
	18	9x		Other (Use Numbers 90-99)		
	19			DISPOSAL (COMMERCIAL)		
	19	20		Container Handling	EA	EA
	19	20	9x	Other (Use Numbers 90-99)		
	19	21		Transportation to Storage/Disposal Facility	TON	MT
	19	21	01	Loading/Hauling/Unloading of Solids	TON	MT
	19	21	02	Pumping/Hauling of Liquids/Sediments/Sludges	GAL	LIT
	19	21	9x	Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	19	22			Disposal Fees and Taxes	TON	MT
	19	22	01		Landfill/Burial Grounds/Trench/Pits	TON	MT
	19	22	02		Above -Ground Vault	TON	MT
	19	22	03		Underground Vault	TON	MT
	19	22	04		Underground Mine/Shaft	TON	MT
	19	22	05		Tanks	GAL	LIT
	19	22	06		Pads (Tumulus/Retrievable Storage/Other)	TON	MT
	19	22	07		Storage Buildings/Protective Cover Structures/Other Blds and Struct	TON	MT
	19	22	08		Cribs	TON	MT
	19	22	09		Deep Well Injection	GAL	LIT
	19	22	10		Incineration	TON	MT
	19	22	9X		Other (Use Numbers 90-99)		
	19	23			Mixed Waste Storage Fees and Taxes	TON	MT
	19	23	9X		Other (Use Numbers 90-99)		
	19	9x			Other (Use Numbers 90-99)		
	20				SITE RESTORATION		
	20	01			Earthwork	CY	M3
	20	01	01		Rock Excavation	CY	M3
	20	01	02		Excavation/Fill	CY	M3
	20	01	03		Backfill	CY	M3
	20	01	04		Borrow	CY	M3
	20	01	05		Hauling	CY	M3
	20	01	06		Spreading	CY	M3
	20	01	07		Grading	SY	M2
	20	01	08		Compaction	CY	M3
	20	01	09		Scarification	CY	M3
	20	01	10		Harrowing	CY	M3
	20	01	11		Tracking	CY	M3
	20	01	12		Contour Furrowing	CY	M3
	20	01	13		Stockpiling	CY	M3
	20	01	14		Topsoil	CY	M3
	20	01	15		Settlement Markers	EA	EA
	20	01	16		Stripping	CY	M3
	20	01	9x		Other (Use Numbers 90-99)		
	20	02			Permanent Markers	EA	EA
	20	02	9x		Other (Use Numbers 90-99)		
	20	03			Permanent Features	EA	EA
	20	03	01		Roads	SY	M2
	20	03	02		Structures	SF	M2
	20	03	03		Utilities	LF	M
	20	03	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	20	04			Revegetation and Planting	ACR	HEC
	20	04	01		Seeding/Mulch/Fertilizer	ACR	HEC
	20	04	02		Sodding	SY	M2
	20	04	03		Erosion Control Fabric	SY	M2
	20	04	04		Shrubs, Trees, Ground Cover	EA	EA
	20	04	05		Topsoil	CY	M3
	20	04	9x		Other (Use Numbers 90-99)		
	20	05			Removal of Barriers	EA	EA
	20	05	9x		Other (Use Numbers 90-99)		
	20	9x			Other (Use Numbers 90-99)		
	21				DEMOBILIZATION		
	21	01			Removal of Temporary Facilities	EA	EA
	21	01	01		Office Trailers	EA	EA
	21	01	02		Storage Facilities	SF	M2
	21	01	03		Observation Tower	EA	EA
	21	01	04		Decontamination Facilities for Personnel	EA	EA
	21	01	05		Decontamination Facilities for Construction Equip/Vehicles	EA	EA
	21	01	06		Temporary Cover Structure Over Contaminated Area	SY	M2
	21	01	07		Lunch/Break Trailer	EA	EA
	21	01	08		Laundry Facilities	SF	M2
	21	01	09		Emergency Medical Trailer/Facilities	SF	M2
	21	01	10		Toilets	EA	EA
	21	01	11		Barricades	EA	EA
	21	01	12		Equipment Maintenance Shop	SF	M2
	21	01	13		Warehouses	SF	M2
	21	01	14		Government Trailers	EA	EA
	21	01	15		Guard Houses	EA	EA
	21	01	16		Truck Scales	EA	EA
	21	01	17		Wastewater Holding Tanks	EA	EA
	21	01	18		Fire Suppression Systems	EA	EA
	21	01	19		POL Dispensing Station	EA	EA
	21	01	20		Photographic Laboratory	EA	EA
	21	01	21		Housing	EA	EA
	21	01	22		Shop Facilities	SF	M2
	21	01	23		Aggregate Surfacing	TON	MT
	21	01	24		Security Fencing	LF	M
	21	01	25		Roads and Parking	SY	M2
	21	01	26		Culverts	LF	M
	21	01	27		Walks	SF	M2
	21	01	28		Signs	EA	EA
	21	01	29		Grading	SY	M2
	21	01	30		Erosion Control	SY	M2
	21	01	9x		Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	21	02			Removal of Temporary Utilities	EA	EA
	21	02	01		Site Lighting	EA	EA
	21	02	02		Power Connection/Distribution	LF	M
	21	02	03		Telephone/Communications Hookup	LF	M
	21	02	04		Water Connection/Distribution	LF	M
	21	02	05		Sewer Connection/Distribution	LF	M
	21	02	06		Gas Connection/Distribution	LF	M
	21	02	9x		Other (Use Numbers 90-99)		
	21	03			Final Decontamination	EA	EA
	21	03	9x		Other (Use Numbers 90-99)		
	21	04			Demobilization of Construction Equipment and Facilities	EA	EA
	21	04	01		Transport Vehicles Ownership/Operation	HR	HR
	21	04	02		Drivers	HR	HR
	21	04	03		Manifests	EA	EA
	21	04	04		Tolls	EA	EA
	21	04	05		Permits	EA	EA
	21	04	06		Escort Vehicles Ownership/Operation	HR	HR
	21	04	07		Construction Equipment Ownership/Operation	HR	HR
	21	04	08		Equipment Operators	HR	HR
	21	04	09		Final Disassembly and Takedown	HR	HR
	21	04	10		Turn in GFE	HR	HR
	21	04	9x		Other (Use Numbers 90-99)		
	21	05			Demobilization of Personnel	EA	EA
	21	05	9x		Other (Use Numbers 90-99)		
	21	06			Submittals	EA	EA
	21	06	01		Punch List	EA	EA
	21	06	02		Project Acceptance	EA	EA
	21	06	03		Survey Information	EA	EA
	21	06	04		Final QA/QC Reports	EA	EA
	21	06	05		Construction Documentation Report	EA	EA
	21	06	06		As-Built Drawings	EA	EA
	21	06	07		Removal Reports	EA	EA
	21	06	08		Regulatory Approvals	EA	EA
	21	06	09		O&M Manuals	EA	EA
	21	06	9x		Other (Use Numbers 90-99)		
	21	07			Construction Plant Takedown	EA	EA
	21	07	01		Concrete Batch	EA	EA
	21	07	02		Block	EA	EA
	21	07	03		Precast	EA	EA
	21	07	04		Asphalt	EA	EA
	21	07	05		Quarry Crusher/Screens	EA	EA
	21	07	9x		Other (Use Numbers 90-99)		
	21	9x			Other (Use Numbers 90-99)		

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	22				GENERAL REQUIREMENTS (Optional Breakout)		
	22	01			Supervision and Management	MO	MO
	22	01	01		Program Manager	MO	MO
	22	01	02		Project Manager	MO	MO
	22	01	03		General Superintendent	MO	MO
	22	01	04		Area Superintendent	MO	MO
	22	01	05		Civil Superintendent	MO	MO
	22	01	06		Carpenter Superintendent	MO	MO
	22	01	07		Mechanical Superintendent	MO	MO
	22	01	08		Electrical Superintendent	MO	MO
	22	01	09		Public Relations Officer	MO	MO
	22	01	10		Clerks, Typists, and Receptionists	MO	MO
	22	01	11		Vehicles	MO	MO
	22	01	12		Travel and Per Diem	MO	MO
	22	01	9x		Other (Use Numbers 90-99)		
	22	02			Administration Job Office	MO	MO
	22	02	01		Contract Administrator	MO	MO
	22	02	02		Comptroller	MO	MO
	22	02	03		Personnel Manager	MO	MO
	22	02	04		Office Manager	MO	MO
	22	02	05		Interpreter	MO	MO
	22	02	06		Accountant	MO	MO
	22	02	07		Bookkeeper	MO	MO
	22	02	08		Timekeeper	MO	MO
	22	02	09		Paymaster	MO	MO
	22	02	10		Payroll Clerks	MO	MO
	22	02	11		Stenographer	MO	MO
	22	02	12		Clerks, Typists, and Receptionists	MO	MO
	22	02	13		Mail Clerk	MO	MO
	22	02	14		Messengers	MO	MO
	22	02	15		Reproduction	MO	MO
	22	02	16		Computer Technicians	MO	MO
	22	02	17		Computer Hardware and Software	MO	MO
	22	02	18		Office Supplies	MO	MO
	22	02	19		Mailing and Shipping	MO	MO
	22	02	20		Vehicles	MO	MO
	22	02	21		Travel and Per Diem	MO	MO
	22	02	9x		Other (Use Numbers 90-99)		
	22	03			Warehouse, Materials Handling, and Purchasing	MO	MO
	22	03	01		Chief Purchasing Agent	MO	MO
	22	03	02		Purchasing Agent	MO	MO
	22	03	03		Buyers	MO	MO
	22	03	04		Expeditors	MO	MO
	22	03	05		Traffic Manager	MO	MO
	22	03	06		Travel Clerks	MO	MO
	22	03	07		Shipping Clerks	MO	MO
	22	03	08		Inventory Control Manager	MO	MO
	22	03	09		Inventory Control Clerks	MO	MO
	22	03	10		Chief Warehouse Manager	MO	MO

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	22	03	11		Receiving Clerk	MO	MO
	22	03	12		Charge Out Clerk	MO	MO
	22	03	13		Tool House Labor	MO	MO
	22	03	14		Common Labor	MO	MO
	22	03	15		Clerks and Typists	MO	MO
	22	03	16		Equipment for Lifting and Moving	MO	MO
	22	03	17		Office Supplies	MO	MO
	22	03	18		Mailing and Shipping	MO	MO
	22	03	19		Vehicles	MO	MO
	22	03	20		Travel and Per Diem	MO	MO
	22	03	9x		Other (Use Numbers 90-99)		
	22	04			Engineering, Surveying, and Quality Control	MO	MO
	22	04	01		Project Engineer	MO	MO
	22	04	02		Civil Engineer	MO	MO
	22	04	03		Mechanical Engineer	MO	MO
	22	04	04		Electrical Engineer	MO	MO
	22	04	05		Geologist	MO	MO
	22	04	06		Hydrogeologist	MO	MO
	22	04	07		Scientist	MO	MO
	22	04	08		Nuclear (Radioactive) Engineer	MO	MO
	22	04	09		Field Engineer	MO	MO
	22	04	10		Surveyors	MO	MO
	22	04	11		Office Engineer	MO	MO
	22	04	12		Draftsman	MO	MO
	22	04	13		Engineering Clerks and Typists	MO	MO
	22	04	14		Cost Engineer and Cost Estimator	MO	MO
	22	04	15		Planning Engineer	MO	MO
	22	04	16		Schedulers	MO	MO
	22	04	17		Inspectors	MO	MO
	22	04	18		Construction Lab Technicians	MO	MO
	22	04	19		Waste Management Technicians	MO	MO
	22	04	20		CPM Schedule Monthly Updates	MO	MO
	22	04	21		Field Shop Drawing Service	MO	MO
	22	04	22		Surveying Supplies and Equipment	MO	MO
	22	04	23		Engineering Supplies and Equipment	MO	MO
	22	04	24		Quality Control Engineer	MO	MO
	22	04	25		Quality Control Manager	MO	MO
	22	04	26		Chemical Quality Control Manager	MO	MO
	22	04	27		Mailing and Shipping	MO	MO
	22	04	28		Vehicles	MO	MO
	22	04	29		Travel and Per Diem	MO	MO
	22	04	9x		Other (Use Numbers 90-99)		
	22	05			Equipment Maintenance and Motor Pool	MO	MO
	22	05	01		Master Mechanic	MO	MO
	22	05	02		Mechanics	MO	MO
	22	05	03		Mechanic Helpers	MO	MO
	22	05	04		Spare Parts Manager	MO	MO
	22	05	05		Parts Clerk	MO	MO
	22	05	06		Motor Pool Manager	MO	MO
	22	05	07		Service Truck Driver	MO	MO

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	22	05	08		Motor Pool Equipment Operator	MO	MO
	22	05	09		Motor Pool Driver	MO	MO
	22	05	10		Common Labor	MO	MO
	22	05	11		Fuel Truck and Labor	MO	MO
	22	05	12		Lube Truck and Labor	MO	MO
	22	05	13		Crane, Lifting Equipment and Labor	MO	MO
	22	05	14		Truck Scales	MO	MO
	22	05	15		Waste Water Holding Tanks	MO	MO
	22	05	16		POL Dispensing Station	MO	MO
	22	05	17		Vehicles	MO	MO
	22	05	18		Travel and Per Diem	MO	MO
	22	05	9x		Other (Use Numbers 90-99)		
	22	06			First Aid, Fire Protection, Traffic Control, and Security	MO	MO
	22	06	01		Field Doctor	MO	MO
	22	06	02		Field Nurse	MO	MO
	22	06	03		Medical Supplies	MO	MO
	22	06	04		Emergency Supplies	MO	MO
	22	06	05		Ambulance	MO	MO
	22	06	06		Field Fire Chief	MO	MO
	22	06	07		Field Fire Fighter	MO	MO
	22	06	08		Fire Fighter Supplies	MO	MO
	22	06	09		Fire Truck	MO	MO
	22	06	10		Water Truck	MO	MO
	22	06	11		Fire Extinguishers and Fire Suppression Systems	MO	MO
	22	06	12		Traffic Flagmen	MO	MO
	22	06	13		Traffic Control Equipment	MO	MO
	22	06	14		Pilot Car	MO	MO
	22	06	15		Barricades	MO	MO
	22	06	16		Security Clerk	MO	MO
	22	06	17		Security Chief	MO	MO
	22	06	18		Security Officer	MO	MO
	22	06	19		Watchmen and Guards	MO	MO
	22	06	20		Vehicles	MO	MO
	22	06	21		Travel and Per Diem	MO	MO
	22	06	9x		Other (Use Numbers 90-99)		
	22	07			Health & Safety	MO	MO
	22	07	01		Certified Industrial Hygienist	MO	MO
	22	07	02		Radiation Protection Technologist (RPT)	MO	MO
	22	07	03		Certified Health Physicist	MO	MO
	22	07	04		ALARA (As Low As Reasonably Acceptable) Specialist	MO	MO
	22	07	05		Dosimetry Specialist	MO	MO
	22	07	06		Health Physics Trainer	MO	MO
	22	07	07		Site Safety & Health Officer	MO	MO
	22	07	08		Safety Engineer	MO	MO
	22	07	09		Safety Clerk	MO	MO
	22	07	10		Industrial Hygiene Technician	MO	MO
	22	07	11		Air Monitoring Technician	MO	MO
	22	07	12		Respiratory Specialist	MO	MO
	22	07	13		Safety Monitor	MO	MO
	22	07	14		Health and Safety Training (HTW & RAD)	MO	MO

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	22	07	15		Health and Safety Medical Exams	MO	MO
	22	07	16		Personal Prot Equip (Prot Clothing, Repirators, Air Supply, etc.)	MO	MO
	22	07	17		Laundry Service	MO	MO
	22	07	18		Heat and Cold Stress Monitoring	MO	MO
	22	07	19		Noise Monitoring	MO	MO
	22	07	20		Odor Monitoring	MO	MO
	22	07	21		On Site Communication System	MO	MO
	22	07	22		Emergency Eye Wash, Body Wash, and Shower	MO	MO
	22	07	23		Radioactive Contamination Protective Equipment	MO	MO
	22	07	24		Vehicles	MO	MO
	22	07	25		Travel and Per Diem	MO	MO
	22	07	9x		Other (Use Numbers 90-99)		
	22	08			Temporary Construction Facilities-Ownership	MO	MO
	22	08	01		Office Trailers and Facilities	MO	MO
	22	08	02		Office Furniture and Office Equipment	MO	MO
	22	08	03		Warehouse and Storage Trailers and Facilities	MO	MO
	22	08	04		Equipment Maintenance Shop	MO	MO
	22	08	05		Photographic Laboratory	MO	MO
	22	08	06		Emergency Medical Trailer and Facilities	MO	MO
	22	08	07		Guard House and Security Shack	MO	MO
	22	08	08		Construction Portable Toilets	MO	MO
	22	08	09		Temporary Site Fencing	MO	MO
	22	08	10		Observation Tower	MO	MO
	22	08	11		Decontamination Facilities for Personnel	MO	MO
	22	08	12		Decon Facilities for Construction Equipment and Vehicles	MO	MO
	22	08	13		Waste Water Holding Tanks	MO	MO
	22	08	14		Lunch Break Trailer and Facilities	MO	MO
	22	08	15		Laundry Trailer and Facilities	MO	MO
	22	08	16		Barricades	MO	MO
	22	08	17		Government Trailers and Facilities	MO	MO
	22	08	18		Weather Station	MO	MO
	22	08	19		Shop Facilities	MO	MO
	22	08	20		Housing	MO	MO
	22	08	9x		Other (Use Numbers 90-99)		
	22	09			Temporary Construction Facilities-Operation	MO	MO
	22	09	01		Operations Manager	MO	MO
	22	09	02		Chefs and Cooks	MO	MO
	22	09	03		Kitchen Help	MO	MO
	22	09	04		Janitors and Cleaning Services	MO	MO
	22	09	05		Maintenance & Repair of Temporary Facilities	MO	MO
	22	09	06		Food and Food Supplies	MO	MO
	22	09	07		Cleaning Supplies	MO	MO
	22	09	08		Linen Supplies	MO	MO
	22	09	09		Personal Items	MO	MO
	22	09	10		Laundry Service	MO	MO
	22	09	11		Garbage Services	MO	MO
	22	09	12		Haul Road Maintenance	MO	MO

HTRW Remedial Action Work Breakdown Structure (RA WBS) To Fourth Level

WBS Number					DESCRIPTION	UOM English Metric	
331XX	22	09	13		Temporary Parking Lot Maintenance	MO	MO
	22	09	14		Vehicles	MO	MO
	22	09	15		Travel and Per Diem	MO	MO
	22	09	9x		Other (Use Numbers 90-99)		
	22	10			Project Utilities	MO	MO
	22	10	01		Telephone Usage	MO	MO
	22	10	02		Electrical Usage	MO	MO
	22	10	03		Sewer Usage	MO	MO
	22	10	04		Water Usage	MO	MO
	22	10	05		Gas Usage	MO	MO
	22	10	9x		Other (Use Numbers 90-99)		
	22	11			Miscellaneous Project Expenses	MO	MO
	22	11	01		Craft Qualification Programs	MO	MO
	22	11	02		Start Up Programs	MO	MO
	22	11	03		Project Photographs	MO	MO
	22	11	04		Video Monitoring/Recording System	MO	MO
	22	11	05		Emergency Air Freight	MO	MO
	22	11	06		Submittals	MO	MO
	22	11	07		Project Signs	MO	MO
	22	11	08		Winterize Project and Temporary Heat	MO	MO
	22	11	09		Daily Site Cleanup	MO	MO
	22	11	10		Final Site Cleanup	MO	MO
	22	11	11		Permits	MO	MO
	22	11	12		Spare Parts Inventory	MO	MO
	22	11	13		Protect Existing Property	MO	MO
	22	11	14		Snow Removal	MO	MO
	22	11	15		Vehicles	MO	MO
	22	11	16		Meetings	MO	MO
	22	11	17		Travel and Per Diem	MO	MO
	22	11	9x		Other (Use Numbers 90-99)		
	22	12			Insurance, Interest, and Fees	MO	MO
	22	12	01		Builders Risk Insurance	MO	MO
	22	12	02		Equipment Floater Insurance	MO	MO
	22	12	03		Liability Insurance	MO	MO
	22	12	04		Pollution Liability Insurance	MO	MO
	22	12	05		Marine Insurance	MO	MO
	22	12	06		Interest for Financing	MO	MO
	22	12	07		Home Office (General and Administrative)	MO	MO
	22	12	08		Profit	MO	MO
	22	12	09		Bond	MO	MO
	22	12	9x		Other (Use Numbers 90-99)		
	22	9x			Other (Use Numbers 90-99)		
332XX					Engineering During Construction (EDC)		
333XX					Supervision & Administration (S&A) Construction Management		