Attachment J-12

Difficult to Dispose Of Waste

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Difficult to Dispose of Waste (As of April 2020)

The waste streams listed below are currently in storage at U.S. Department of Energy (DOE) Office of Environmental Management facilities and areas under the Contractor's responsibility (See Section C, Attachment C-2). These wastes have either no current disposition paths or the known disposition paths are cost-prohibitive and/or difficult to implement. The Contractor shall work with DOE to develop innovative and cost-effective approaches to disposition of these wastes. As such approaches are identified, treatment and disposition for individual waste streams may be incorporated in Task Orders.

Location	Container ID	Container Type	Waste Description
ORNL 7822K	K25C0602185	BoxB25M	Cask #1 from the K770 scrap yard in Area 3. This item is to be stored at ORNL 7822K Building until further disposition. Process knowledge information has been gathered from TSDA-ET-K770-0001 (Rev 0). Note: This waste stream is currently being monitored while stored on the 7822K pad, and is in TWPC's scope for processing.
ORNL 7822K	K25C0602186	BoxB25M	Cask # 2 from the K770 scrap yard in Area 24. This item is to be stored at ORNL 7822K Building until further disposition. Process knowledge information has been gathered from TSDA-ET-K770-0001 (Rev 0). Note: This waste stream is currently being monitored while stored on the 7822K pad, and is in TWPC's scope for processing.
ORNL 7822K	K25C0602187	BoxB25M	Cask #3 from the K770 scrap yard in Area 28. This item is to be stored at ORNL 7822K Building until further disposition. Process knowledge information has been gathered from TSDA-ET-K770-0001 (REV 0). Note: This waste stream is currently being monitored while stored on the 7822K pad, and is in TWPC's scope for processing.
ORNL 7822K	X10C0010147	Leadcar	Dewatered primary cation and anion resin inside polyethylene high integrity container. HIC model PL10-160 FMT S/N L502342-2 contained in CNS 10-160B Cask.
ORNL 7822K	X10C0010204	Leadcar	98 cf of dewatered primary cation and anion resin inside polyethylene high integrity container. HIC model 10-160 S/N N499372-5 inside DOT 7B shipping cask.

Location	Container ID	Container Type	Waste Description
ORNL 7822K	X10C0010384	BoxM	Paper, plastic, PPE, cloth, incidental metal. New 55 gal. drums inside B-25 box are used for containment of high rad bags of waste. Wood braces are used to secure drum position inside box. Pictures of box loading attached to log sheet.
ORNL 7822K	X10C0402650	Leadcar	Dewatered primary cation and anion resin inside polyethylene high integrity container. HIC model PL8-120FMT S/N L-503877-15 contained in 8-120B cask, Type B, USA/9168/B(U), cask empty wt. 49,300 lbs.
ORNL 7822K	X10C0505625	CaskC	Pool resin in HIC (10-160)
ORNL 7822K	X10C0702200	CaskC	Ion exchange resin (cation 35 cf and anion 63 cf).
ORNL 7822K	X10C9310170	VaultC	Hot cell waste from facility D&D, cell tools, cloth, all put into metal cans and put inside concrete~hot cell waste from facility D&D. Cell tools, cloth wipes, glass, plastic, etc. All put into IFDP concrete vault. Vault wt. 2800 lbs.
ORNL 7822K	X10C9500109	VaultC96	Contaminated equipment
ORNL 7822K	X10C9501078	VaultC96	Soil, absorbent, plastic pipe in corner
ORNL 7822K	X10C9600857	VaultC96	Metal can. noncompactible waste from facility D&D~noncompactible waste from facility D&D. Metal tools and rubble~ (Note: this item shielded with 200 lbs. lead.~Noncompactible waste from facility D&D. PPE, paper, plasti~spoung jet media, and HEPA filter in metal drum~concrete rubble in metal drum~Concrete rubble and metal pipe in a plastic bag~concrete rubble in a plastic bag ~paper, cloth wipes, and concrete rubble in metal can
ORNL 7822K	X10C9601193	VaultC96	Scrap metal, plastic, blotter paper from hot cells inside 14" drum ~remote handle scrap metal, plastic, blotter paper from hot cells in 55 gal. drum
ORNL 7822K	X10C9601263	VaultC	Hot cell waste from facility D&D consisting of cloth wipes, plastic & metal tools put into 1-gal cans. Waste cans put into IFDP concrete vault 280
ORNL 7822K	X10C9601285	BoxM	D&D drum contains waste~core sample
ORNL 7822K	X10C9601297	BoxM	Core sample~D&D drum contains waste
ORNL 7822K	X10C9700295	VaultC96	Ten gal. of radioactive ion exchange resin (CST resin ionsieve IE-911); 153.04 CI Cs-137; max. dose rate reading: 390 R; 15 gal. of vermiculite added.

Location	Container ID	Container Type	Waste Description
ORNL 7822K	X10C9700317	VaultC96	Ten gal. of radioactive ion exchange resin (CST resin ionsieve IE-911); 222.7 CI Cs-137; max. dose rate reading: 450 R. 15 gal. of vermiculite added~UNID = RA-22~radium & daughter
ORNL 7822K	X10C9700318	VaultC96	Ten gal. of radioactive ion exchange resin (CST resin ionsieve IE-911); 112.42 CI Cs-137; max. dose rate: 390 R. 15 gal. of vermiculite added.
ORNL 7822K	X10C9700386	VaultC96	Ten gal. of radioactive ion exchange resin (CST resin ionsieve IE-911); 251.55 CI Cs-137; max. dose rate: >1000 R.; 12 gal. of vermiculite added.
ORNL 7822K	X10C9700387	VaultC96	Ten gal. of radioactive ion exchange resin (CST resin ionsieve IE-911); 266.60 CI Cs-137; max. dose rate: 620 R.; 12 gal. of vermiculite added.
ORNL 7822K	X10C9700388	VaultC96	Ten gal. of radioactive ion exchange resin (CST resin ionsieve IE-911); 112.00 CI Cs-137; max. dose rate: 460 R.; 12 gal. of vermiculite added.
ORNL 7822K	X10C9700466	VaultC96	Miscellaneous metal, paper, plastic, cloth, etc. waste from hot cells loaded into a 55-gal drum See attached for details - miscellaneous waste from hot cells loaded into 55-gal drum. see attached for details~miscellaneous metal, paper, glass from hot cells loaded into a 55-gal drum~miscellaneous waste from hot cells loaded into a 55-gal drum
ORNL 7822K	X10C9700565	LinerCS	Resin approx. 3600 lbs. microshield calculated unshielded dose rate at contact is 1.257E+6 mrem/hr.
ORNL 7822K	X10C9702545	VaultC96	Remote handle scrap, paper, plastic, metal from hot cells loaded into 55 gal. drum~metal box inside plastic bag inside B25 box~in cell pre-filters inside plastic bag inside B25 box~metal milling machine inside plastic bag inside B25 box
ORNL 7822K	X10C9800351	VaultC96	Remote handle waste from hot cells
ORNL 7822K	X10C9800352	VaultC	Concrete vault containing approximately 2,500 irradiated metallic specimens in 16 metal cans. The 16 cans are inside sleeves grouted in place. Solid steel shield plugs, for the purpose of shielding, are placed at the top of each sleeve.
ORNL 7822K	X10C9800357	VaultC96	Metal cans and plastic, paper in 30 gal metal drum~research specimens from 3026D in carrier (SP-5907)
ORNL 7822K	X10C9800379	VaultC96	Paper, plastic, PPE
ORNL 7822K	X10C9800380	VaultC96	Co-60 sources encapsulated in aluminum run #3 - 60 source~Co-60 sources encapsulated in aluminum run #1 - 41 source

Location	Container ID	Container Type	Waste Description
ORNL 7822K	X10C9800399	VaultC96	Glass, metal, and plastic inside drum containing sand as shielding~small metal inside drum containing sand as shielding~metal & rags inside drum containing sand as shielding
ORNL 7822K	X10C9802390	VaultC96	Small metal inside drum containing gravel as shielding~plastic, glass, metal drum containing gravel as shielding
ORNL 7822K	X10C9802410	VaultC	Summary WID created for vault. Summary WID for container X10C9601977 completed by BJC LLC. Dewatered primary resin in concrete lined B-25 box located within an IWMF vault (No. 98A1195).
ORNL 7822K	X10C9802777	VaultC96	PPE, cloth rags, metal, HEPA filters, plastic
ORNL 7822K	X10C9802871	VaultC96	3 sealed sources for disposal from Y-12 Plant funded by BJC LLC. Co-60-0234 (9.21 CI), Co-60-0225 (3.04 CI), Co-60 (9.5 CI). Placed into 1 well of the "~12 Co-60 sources, .5" X 12" from 3025 gamma room facility, source #Co-60-3227; all contained in an inner CA~8 of 12 Co-60 sources (Co-60-3219) from 3025E gamma room facility. All contained in inner can. Removed sources retained at holding facility, I.E.4 0F 1
ORNL 7822K	X10CSLLN007648	VaultC96	This is from cell clean-up of Bldg. 3033A & 3550 in prep. of putting bldg. on standby / box
ORNL 7822K	X10CSLLN008171	VaultC96	Paper, plastic, rubber, metal, wood in a metal box = 4 x 4 x 6 #18
ORNL 7822K	X10CSLLN008229	VaultC96	Lab benches, gas cylinders pumps, assorted packets of lab equipment box = 4 x 4 x 6
ORNL 7831F	K25C1303824	85 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1303832	85 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.

Location	Container ID	Container Type	Waste Description
ORNL 7831F	K25C1303834	85 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1406546	85 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1406578	85 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1406582	85 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507898	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507899	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507905	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.

Location	Container ID	Container Type	Waste Description
ORNL 7831F	K25C1507906	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507907	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507908	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507909	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507910	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507913	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1507914	110 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Code F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.

Location	Container ID	Container Type	Waste Description
ORNL 7831F	K25C1712602	30 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. This waste is residual from a dioxin and furan treatability study sponsored by DOE-HQ.
ORNL 7831F	K25C1712677	30 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. This waste is residual from a dioxin and furan treatability study sponsored by DOE-HQ.
ORNL 7831F	K25C1815619	55 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1815620	55 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1815621	55 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1815622	55 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1815623	55 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL 7831F	K25C1815624	55 gal drum	Mixed liquid-phase low-level waste that carries EPA Waste Id Codes F020 and F027 among numerous other codes. Generated from the treatment of solid-phase waste via vacuum-assisted thermal desorption.
ORNL SWSA 5	X10C1250380	STT	Shielded Transfer Tank (STT) at SWSA 5
ORNL SWSA 5	X10C1250381	STT	Shielded Transfer Tank (STT) at SWSA 5
ORNL SWSA 5	X10C1250382	STT	Shielded Transfer Tank (STT) at SWSA 5
ORNL SWSA 5	X10C1250383	STT	Shielded Transfer Tank (STT) at SWSA 5
ORNL SWSA 5	X10C1250384	STT	Shielded Transfer Tank at SWSA 5
Y-12 9201-4 Outside North	K25C1713560	55 gal drum	Gravel, Mercury, Paint Chips (PCB)
Y-12 9201-4 Outside North	K25C1713572	55 gal drum	Gravel, Mercury, Paint Chips (PCB)

Location	Container ID	Container Type	Waste Description
Y-12 9201-4 Outside North	K25C1713585	55 gal drum	Gravel, Mercury, Paint Chips (PCB)
Y-12 9201-4 Outside North	K25C1713586	55 gal drum	Gravel, Mercury, Paint Chips (PCB)
Y-12 9201-4 Outside North	K25C1713563	55 gal drum	Pieces of Painted Metal, Paint Chips (PCB), Mercury
Y-12 9201-4 Outside North	K25C1815195	55 gal drum	Pieces of Painted Metal, Paint Chips (PCB), Mercury
Y-12 9201-4 Outside North	K25C1713569	55 gal drum	Pieces of Painted Metal, Paint Chips (PCB), Mercury
Bethlehem Apparatus pending return to Y-12	TBD	55 gal drum (7)	Failed RMERC Residue (7 drums)
ORNL 3517		Shipping cask	Weather Bureau (Sentury). Shipping cask containing source.
ORNL 3517		RTG	Schaich Cask
ORNL 3517		RTG	BUP-500 RTG. 544,000 Ci ^{90}Sr, 17 Ci ^{137}Cs (per BJC/OR-1081, Revision 2, *Evaluation of Bldg. 3517 Casks for Potential Long-Term Storage*) Decay corrected to 2015
ORNL 3517		Cask	ORNL Bulk radioisotope cask < 27,000 Ci Sr-90. Decay corrected to 2013
ORNL 3517		Cask	Uranium shielded Model L cask, 1,400 Ci Eu-152, 2,100 Ci Eu-154
ORNL 3517		Cask	Uranium shielded Model L cask (empty)
ORNL 3517		Cask	Uranium shielded Model M cask, 20 Ci Cs-137
ORNL 3517		Cask	Unmodified Pierce cask, 3,900 Ci Cs-137
ORNL 3517		Cask	Modified Pierce cask, 3,800 Ci Cs-137
ORNL 3517		Cask	Tungsten cask, 4 Ci Cs-137
ORNL 3517		Cask	American Nuclear cask, 6,000 Ci, Cs-137
ORNL 3517		Cask	6C6 cask, 0.4Ci Sr-90
ORNL 3517		Cask	Pickering X-ray Unit, 875 Ci, Cs-137
ORNL SWSA 5	IE13375	Shield	Sodium Shield
ORNL SWSA 5	IE13376	Shield	Sodium Shield
ORNL SWSA 5	IE13377	Shield	Sodium Shield
ORNL SWSA 5	IE13378	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE13379	Shield	Sodium Shield (activated)

Location	Container ID	Container Type	Waste Description
ORNL SWSA 5	IE13380	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE13381	Shield	Sodium Shield
ORNL SWSA 5	IE40115	Shield	Sodium Shield
ORNL SWSA 5	IE40116	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40117	Shield	Sodium Shield
ORNL SWSA 5	IE40118	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40119	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40120	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40121	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40122	Shield	Sodium Shield
ORNL SWSA 5	IE40123	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40124	Shield	Sodium Shield
ORNL SWSA 5	IE40128	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40133	Shield	Sodium Shield
ORNL SWSA 5	IE13408	Shield	Sodium Shield (Contains DU, activated)
ORNL SWSA 5	IE13409	Shield	Sodium Shield (Contains DU, activated)
ORNL SWSA 5	IE13410	Shield	Sodium Shield (Contains DU, activated)
ORNL SWSA 5	IE40110	Shield	Sodium Shield
ORNL SWSA 5	IE40111	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40112	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40113	Shield	Sodium Shield (activated)
ORNL SWSA 5	IE40130	Shield	Radial Blanket Shield (Contains al, Na, UO2, activated)
ORNL SWSA 5	IE40131	Shield	Radial Blanket Shield (Contains al, Na, UO2, activated)
ORNL SWSA 5	IE40132	Shield	Radial Blanket Shield (Contains al, Na, UO2, activated)
ORNL	190K4305G	Shield	Sodium Shield (Contains SS rods)
ORNL	IE13403	Shield	Sodium Shield
ORNL	IE13404	Shield	Sodium Shield
ORNL	IE13406	Shield	Sodium Shield
ORNL	IE13407	Shield	Sodium Shield
ORNL	IE13230	Shield	Lithium Hydride Shield
ORNL	IE13400	Shield	Lithium Hydride Shield
ORNL	IE13401	Shield	Lithium Hydride Shield
ORNL	IE13405	Shield	Lithium Hydride Shield (activated)
ORNL	IE40125	Shield	Lithium Hydride Shield

Location	Container ID	Container Type	Waste Description
ORNL	IE40126	Shield	Lithium Hydride Shield
ORNL	IE40127	Shield	Lithium Hydride Shield
ORNL	IE40129	Shield	Lithium Hydride Shield
ORNL		Shield	Pratt & Whitney Lithium Hydride Shield (Contains UO2)
ORNL 3505	X10C1101231	Concrete Vault	Irradiated metal from High Flux Isotope Reactor (HFIR)
ORNL 3505	X10C1101232	Concrete Vault	Irradiated metal from High Flux Isotope Reactor (HFIR)
ORNL 3505	X10C1101233	Concrete Vault	Irradiated metal from High Flux Isotope Reactor (HFIR)
ORNL 3505	X10C1101234	Concrete Vault	Irradiated metal from High Flux Isotope Reactor (HFIR)
ORNL 3505	X10C1101235	Concrete Vault	Irradiated metal from High Flux Isotope Reactor (HFIR)
ORNL 3505	X10C1101236	Concrete Vault	Irradiated metal from High Flux Isotope Reactor (HFIR)
ORNL 7827	X10CSLLN005614	Canister	Canister in shielded dry well storage. The contents consist of irradiated metal parts originating from spent-fuel pool-cleanout operations at ONRL's HFIR, Control Plates and Target Rods that were also irradiated at HFIR, and cobalt-60 metal sources (which were removed from the ONRL Bldg. 3001 Storage Canal and Bldg. 3029)
ORNL 7827	X10CSLLN006250	Canister	Canister in shielded dry well storage. The contents consist of irradiated metal parts originating from spent-fuel pool-cleanout operations at ONRL's HFIR, Control Plates and Target Rods that were also irradiated at HFIR, and cobalt-60 metal sources (which were removed from the ONRL Bldg. 3001 Storage Canal and Bldg. 3029)
ORNL 7827	X10CSLLN005613	Canister	Canister in shielded dry well storage. The contents consist of irradiated metal parts originating from spent-fuel pool-cleanout operations at ONRL's HFIR, Control Plates and Target Rods that were also irradiated at HFIR, and cobalt-60 metal sources (which were removed from the ONRL Bldg. 3001 Storage Canal and Bldg. 3029)
ORNL MSRE			Charcoal canister – a 500-psig pressure vessel which was placed inside a steel-reinforced concrete cask for shielding (approx.. 4.5 ft in diameter and about 6 ft in height), and includes a lead shielded top plug. Canister contains activated charcoal used to treat MSRE off-gas. The uranium-laden charcoal was removed and placed into the collector canister in FY 2001. Note: This waste item is in Isotek's scope to process.
ORNL 7877		High Integrity Container	HIC containing resin from processing activities at 7877

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