APPENDIX B
MATERIALS AND COMPONENTS OF HLW STORAGE SYSTEMS

Function	Component	Safety Class*	Codes, Standards	Material	Strength (Ksi)	Surface Finish/Coat.	Contact Mat. [if Dissimilar]	Residuals on Surface	Welding Process	Weld Filler Metal
Containment	Drain port plugs									
	Inner cask bottom head									
	Inner cask lid									
	Inner cask lid seals									
	Inner cask shell									
	Inner cask shell upper hd.									
	Leak check port plug									
	Lid closure hardware									
	Outer cask inner shell									
	Outer cask lid									
	Outer cask lid seals									
	Outer cask shell bot. hd.									
	Outer cask shell upper hd.									
	Pressure relief device									
	Vent, drain, press. seals									
	Vent port plug									
Criticality Control	Basket assembly									
	Neutron absorbers									
Shielding	Gamma shielding									
	Inner cask top shield plug									
	Neutron shielding									
Heat transfer	Temp. contl. components									
Structural Integrity	Cask hardware									
	Conc. base unit, roof slab									
	Conc. struct. access bolts									
	Concrete support pad									
	Inner cask support struct.									
	Outer cask outer shell									
Opers. supp.	Access door lifting lugs									
	Lift.lugs/trunnions/grapples									
	Lift. lug/trunnion bolts									
	Protective cover									
	Roof slab lifting eyes									
	Security lockwire, seals									
	Shielded access door									
	Shielding shell									
	Transfer cask									

- The safety classification for the various functions and components should be based on terminology of NUREG/CR-6407, "Classification of Transportation Packaging and Dry Spent Fuel Storage System Components According to Importance to Safety," February, 1996. INEL Report 95/0551

APPENDIX B
MATERIALS AND COMPONENTS OF HLW STORAGE SYSTEMS
(Cont.)

Function	Component	Stress		Temp. [Storage]			Temp. [Loading]	Temp. [Unloading]	Pressure		
		Norm. (Ksi)	Max. (Ksi)	Norm. (F)	Min. (F)	Max. (F)	Max. (F/hr)	Max. (F/hr)	Min. (psig)	Max. (psig)	Gas (type)
Containment	Drain port plugs										
	Inner cask bottom head										
	Inner cask lid										
	Inner cask lid seals										
	Inner cask shell										
	Inner cask shell upper hd.										
	Leak check port plug										
	Lid closure hardware										
	Outer cask inner shell										
	Outer cask lid										
	Outer cask lid seals										
	Outer cask shell bot. hd.										
	Outer cask shell upper hd.										
	Pressure relief device										
	Vent, drain, press. seals										
	Vent port plug										
Criticality Control	Basket assembly										
	Neutron absorbers										
Shielding	Gamma shielding										
	Inner cask top shield plug										
	Neutron shielding										
Heat transfer	Temp. contl. components										
Structural Integrity	Cask hardware										
	Conc. base unit, roof slab										
	Conc. struct. access bolts										
	Concrete support pad										
	Inner cask support struct.										
	Outer cask outer shell										
Opers. supp.	Access door lifting lugs										
	Lift.lugs/trunnions/grapples										
	Lift. lug/trunnion bolts										
	Protective cover										
	Roof slab lifting eyes										
	Security lockwire, seals										
	Shielded access door										
	Shielding shell										
	Transfer cask										