

Characteristics of Spent Fuel Transportation Packages (Transportation Only casks)

Designation	Status/ Certificate Holder	Cask Design					Fuel Characteristics					Unique Contents
		Description	Materials (*1)	Cask Outer Diameter (*7)	Impact Limiter Design	Closures (*2)	Type	Max. Init. Enrichm't, %	Max. Burnup (GWD/MTU)	Min. Cool Time (yr)	Cask Heat Output (kW)	
IF-300	Certificate (71-9001) Chem-Nuclear Systems, Inc.	stainless steel encased, DU shielded cask with 3 basket designs	SS, DU, Cu, Metallic Ring, Water-Ethylene-Glycol Mix	64"	32 Stainless steel impact fins, 16 extend 8" from cask end and 16 extend 6" from cask end	bolted	6,7 PWR 17,18 BWR	4.0 PWR 4.0 PWR 4.0 BWR 4.25 BWR 4.25 PWR	45 PWR 35 PWR 35 BWR 45 BWR 45 PWR	5 PWR 120 days PWR 120 days BWR 4 BWR 5 PWR	11.72 (listed in CoC as 40000 BTU/hr)	see CoC
NLI-1/2	Certificate (71-9010) NAC International, Inc.	stainless steel encased, DU-water-lead shielded shipping cask with 4 configurations (one has inner canister)	SS, DU, Pb, (Borated) Water-Ethylene-Glycol Mix, Ag-plated O-ring, Elastomer O-ring, Al, Boral	36.8"	Balsa wood structure in aluminum weldment	bolted	1 PWR FA 2 BWR FAs 25 PWR rods 18 BWR rods	3.7 PWR FAs 2.65 BWR FAs 4.9 PWR rods 5.0 BWR rods	34 PWR FAs 34 BWR FAs 60 PWR rods 75 BWR rods	150 days PWR FA 120 days BWR FA 150 days PWR, BWR rods	10.6 PWR, BWR FAs 1.65 PWR rods 4.0 BWR rods	neutron source components, see CoC for others
NAC-LWT	Certificate (71-9225) NAC International, Inc.	steel-encased, lead shielded cask	SS, Pb, Metallic and Teflon O-rings, Ethylene Glycol/Water Solution of 1w/o Boron	39.2"	Aluminum honeycomb	bolted	1 PWR FA 2 BWR FAs 25 rods	3.5,3.7 PWR FA 4.0 BWR FA 5 rods	35 PWR FAs 30 BWR FAs 60, 80 PWR rods 80 BWR rods	2 PWR, BWR FAs 150 days PWR rods 150 - 270 days BWR rods	2.5 PWR FA 2.2 BWR FAs 1.41, 2.3 PWR rods 2.1 BWR rods	Damaged & intact PWR and BWR rods, see CoC for others
GA-4	Certificate (71-9226) General Atomics	cask with square cavity for 4 PWR spent fuel assemblies	SS, DU, B4C, Aqueous Propylene Glycol - 1%B (KB4) Solution, Ethylene Propylene O-ring	39.8"	Aluminum honeycomb in stainless steel structure	bolted	4 PWR	3.15	35 45	10 15	2.47	control rods, non-fuel assembly hardware

Notes:

(*1) - Materials abbreviations

DU = depleted uranium	B4C = boron carbide	KB4 = potassium tetraborate
CS = carbon steel	SS = stainless steel	Al = aluminum
BSS = borated stainless steel		Zn = zinc
Ni = nickel	Cu = copper	Pb = lead
Ti = titanium	Zr = zirconium	Al-B = aluminum-boron

(*2) - Primary containment boundary closures.

(*7) - dimension doesn't include impact limiters

Cask Name	Dimensions																		
	MPC/Canister								Cask										
	ID (in)	OD (in)	Cavity Height (in)	Outer Height (in)	Wall Thickness (in)	Base Thickness (in)	Structural Lid thickness (in) (*10)	Max Wt (ton) (*8)	Cavity Height (in)	ID (in)	OD (in) (*7)	Height (in) (*7)	Base Thickness (in)	Structural Lid Thickness (in) (*10)	Radial N Shield Thickness (in)	Inner Shell Thickness (in)	Gamma Shield Thickness (in)	Total Wall Thickness (in) (*25)	Max Wt (ton) (*8)
IF-300 (71-9001)			N/A						180.3 BWR 169.5 PWR	37.5	64	192.4 BWR 182.2 PWR	6.5	5.5 BWR 6 PWR	7.1	0.5	4	13.3	70
NLI-1/2 (71-9010) (*12) (*24)	12.6	13.1	177.9	184.3	0.3	1.4	5	1.8	189.9 Config A 178.2 others	13.4	36.8	197.4	6	1.5	5	0.5	4.9	11.7	23.2 - 23.9
NAC-LWT (71-9225) (*12)			N/A						178	13.4	39.2	199.8	10.5	11.3	5	0.8	5.8	12.9	24.2
GA-4 (71-9226) (*11)			N/A						167.3	18.2 (flats) 24.6 (corners)	39.8	187.8	9.5	11	6.0 (flats) 2.8 (corners)	0.4	2.7	10.8 (flats) 7.6 (corners)	25.5

(*7) - dimension doesn't include impact limiters

(*8) - maximum weight is with canister/cask fully loaded and excludes impact limiters

(*10) - Note on Structural Lid Thickness: This is thickness of lid specifically labeled as the structural lid, or the outer lid of a multi-lid system.

In some cases where the shield plug is an integral part of the lid, its thickness is included as well.

(*11) - Due to the cask exterior being round and the cavity being square, the cavity diameter and total wall thickness are given across the cavity diagonals and along directions perpendicular to the cavity's faces.

(*12) - For NLI-1/2 and NAC-LWT, the OD and total wall thickness do not include neutron shield expansion tanks and valve boxes attached to the cask.

(*24) - The inner canister is used only in configuration A.

(*25) - Total wall thickness includes the thickness of: the neutron shield and its jacket, the cask inner and outer shells, and the gamma shield.

In other words, the total wall thickness encompasses the thickness of all the materials that contribute to the difference between the cask's outer diameter and cavity diameter.

Characteristics of Spent Fuel Storage Casks

		Cask Design				Fuel Characteristics					
Designation	Status/Users	Description	Materials (*1)	Cask Outer Diameter (*7)	Closures (*2)	Type	Max. Init. Enrichm't, %	Max. Burnup (GWD/MTU)	Min. Cool Time (yr)	Cask Heat Output (kW)	Unique Contents
CASTOR V/21	CERT-1000 Surry (SNM-2501)	vertical metal cask on concrete pad	Cast Iron, SS, BSS, Ni Coating, Polyethylene, Epoxy Resin Coating, Elastomer Seals	94.5"	bolted	21 PWR	3.5 3.7	35 40	5 6	21.1	
Castor X/32S	Under Review (72-1028)	vertical carbon steel cask with borated aluminum (NAM) rods on concrete pad	CS, SS, Al, Polyethylene, Al-B4C Composite, Flame-sprayed Al, Inconel, Viton, BROCOPHAN, Silicon Sealant	91.6"	1) Bolted inner and outer 2) Bolted inner, welded outer	32 PWR	5.0	45	2.9 - 9.5	32	BPRAs
NAC-S/T	CERT-1002	vertical metal cask on concrete pad	SS, Pb, Al, Cu, NS4FR, Boral	94"	bolted	26 PWR	3.3	35	5	26	
NAC-C28 S/T	CERT-1003	vertical metal cask on concrete pad; contains consolidated FA's - fuel rods from 56 PWR FAs consolidated into 28 canisters	SS, Pb, Al, Cu, NS4FR, Boral	94"	bolted	28 PWR	3.5	35	10	20	
NAC-I28 S/T	Surry approved TSAR (SNM-2501) No Certificate	vertical metal cask on concrete pad	SS, Pb, Al, Cu, NS4FR, Boron Impregnated Al, Silicone Foam	95.2"	bolted	28 PWR	1.9	35	10	15.6	BPRAs, TPDs
TN-24	CERT-1005	vertical metal cask on concrete pad	CS, Al, Zn/Al & Ti/Al-Oxide Coatings, Cu, Borated Polyester Resin, Borated SS, SS, Al, Viton O-rings, Polypropylene	94.8"	bolted	24 PWR	3.5	35	5	24	
TN-32	CERT-1021	vertical metal cask on concrete pad	CS, Al Coating, Al, SS, Borated Polyester Resin, Borated Aluminum, Viton, Polypropylene	97.8"	bolted	32 PWR	4.05	45	7 (*13)	32.7	BPRAs, TPAs
TN-32A	CERT-1021	vertical metal cask on concrete pad	CS, Al Coating, Al, SS, Borated Polyester Resin, Borated Aluminum, Viton, Polypropylene	97.8"	bolted	32 PWR	4.05	45	7 (*13)	32.7	BPRAs, TPAs
TN-32B	CERT-1021	vertical metal cask on concrete pad	CS, Al Coating, Al, SS, Borated Polyester Resin, Borated Aluminum, Viton, Polypropylene	97.8"	bolted	32 PWR	4.05	45	7 (*13)	32.7	BPRAs, TPAs
TN-40	Prairie Is. (SNM-2506)	vertical metal cask on concrete pad	CS, Al, Zn/Al Coating, Borated Polyester Resin, Viton, Polypropylene, SS, Boral	101"	bolted	40 PWR	3.85	45	10	27	BPRAs, TPDs
VSC-24	CERT-1007	vertical concrete overpack w/ metal sealed basket & transfer cask	Ceramic Tiles, CS, SS, Concrete, Viton O-rings, Rx-277, Coatings (*14)	132"	welded canister, bolted overpack	24 PWR	4.2	51.8 45	5 (*13)	24	BPRAs, TPAs
MC-10	Ineel/Surry approved TSAR (SNM-2501) CERT-1001(NOTE: Letter in for termination of CoC)	vertical metal cask on concrete pad	SS, CS, Low Alloy Steel, NS3, Al, B4C, Ni, Boral, Inconel, Carbo-Zinc8 Coating, Ethylene, Propylene, Polyacrylate	94.3"	welded (TSAR says bolted & 3rd cover can be welded)	24 PWR	3.7	35	10	13.5	BPRAs, TPDs

Notes:

(*1) - Materials abbreviations

DU = depleted uranium B4C = boron carbide KB4 = potassium tetraborate
 CS = carbon steel SS = stainless steel Al = aluminum
 BSS = borated stainless steel Zn = zinc
 Ni = nickel Cu = copper Pb = lead
 Ti = titanium Zr = zirconium Al-B = aluminum-boron

(*2) - Primary containment boundary closures.

(*13) - See table in FSAR

(*14) - Useable coatings: Everlube 812, Everlube 823, Carbo-Zinc 11, Dimetcote 6, or equivalent

(*7) - dimension doesn't include impact limiters

Dimensions																			
Cask Name	MPC/Canister								Cask										
	ID (in)	OD (in)	Cavity Height (in)	Outer Height (in)	Wall Thickness (in)	Base Thickness (in)	Structural Lid Thickness (in) (*10)	Max Wt (ton) (*8)	Cavity Height (in)	ID (in)	OD (in) (*7)	Height (in) (*7)	Base Thickness (in)	Structural Lid Thickness (in) (*10)	Radial N Shield Thickness (in)	Inner Shell Thickness (in)	Gamma Shield Thickness (in)	Total Wall Thickness (in) (*25)	Max Wt (ton) (*8)
CASTOR V/21		N/A							163.5	60.1	94.5	192.4	13.8	3.5	(*22)	N/A	(*22)	17.2	108
Castor X/32S		N/A							163.6	68.1	91.6	190.9	8.4	14.9	(*22)	N/A	(*22)	11.8	117.7
NAC-S/T		N/A							166	64.8	94	183.3 (*15)	8.8	8.5	7	1.5	3.2	14.6	81.1 (empty)
NAC-C28 S/T		N/A							166	64.8	94	183.3 (*15)	8.8	8.5	7	1.5	3.2	14.6	83 (empty)
NAC-128 S/T		N/A							166	64.8	95.2	183.3 (*15)	8.8	8.5	7	1.5	3.2	15.2	102.9
TN-24		N/A							163.3	63	94.8	201	11.3	11.5	5.4	N/A	9.8	15.9	108
TN-32		N/A							163.3	68.8	97.8	202.3	10.3	4.5	4.5	1.5	8	14.5	115.5
TN-32A		N/A							164.4	68.8	97.8	202.3	10.3	4.5	4.5	1.5	8	14.5	115.6
TN-32B		N/A							163.3	68.8	97.8	202.3	10.3	4.5	4.5	1.5	8	14.5	115.6
TN-40		N/A							163	72	101	201.6	10.3	4.5	4.3	1.5	8	14.5	
VSC-24	60.5	62.5	150.6 - 178.6	164.2 - 192.2	1	0.8	3	28.4 - 34.3	171.9 - 200.3	70.5	132	196.7 - 225.1	2 (*23)	0.8	29	1.8	1.8	30.8	126.4 - 143.9
MC-10		N/A							164.1	68.3	94.3 (*16)	191.9 (TSAR) 188 (CoC)	11	3.5	3	10	10	13.1	119.8 (TSAR) 113.3 (CoC)

(*7) - dimension doesn't include impact limiters

(*8) - Max wt is with canister/cask fully loaded and excludes impact limiters

(*10) - Note on Structural Lid Thickness: This is thickness of lid specifically labeled as the structural lid, or the outer lid of a multi-lid system.

In some cases where the shield plug is an integral part of the lid, its thickness is included as well.

(*15) - Doesn't include an additional neutron shield for the top that would add another 6" to the Height listed in the table.

(*16) - Doesn't include fins; with fins, the OD is 107.28 according to CoC.

(*22) - two concentric rings of poly rods in the cast iron; rods' D = 6" for Castor V/21 and rods' D = 2.75" for Castor X/32S.

(*23) - base sits 22" above cask bottom

(*25) - Total wall thickness includes the thickness of: the neutron shield and its jacket, the cask inner and outer shells, and the gamma shield.

In other words, the total wall thickness encompasses the thickness of all the materials that contribute to the difference between the cask's outer diameter and cavity diameter.

Characteristics of Dual Purpose Casks

Designation	Status	Cask System Design					Fuel Characteristics					Unique Contents
		Description	Materials (*1)	Cask Outer Diameter (*7)	Impact Limiter Design	Closures (*2)	Type	Max. Init. Enrichm't,%	Max. Burnup (GWD/MTU)	Min. Cool Time (yr)	Max. Cask Heat Output (kW)	
Holtec HI-STAR 100 (transport)	Certificate (71-9261)	vertical metal overpack w/ dual-purpose canister & 3 basket assemblies	SS, CS, Al, Holite-A Paints, Boral	96"	Aluminum honeycomb in stainless steel skin	welded canister, bolted overpack	24 PWR 68 BWR 68F BWR	3.8 - 4.6 PWR 4.0,5.0,5.5 BWR 4.0,5.5 BWR (68F)	24.5-44.1 PWR 24.5-39.1 BWR 30 BWR (68F) (*3)	7-24 PWR 8-18 BWR 18 BWR (68F) (*3)	9.0 - 16.9 PWR 12.2 - 16.2 BWR 7.82 BWR (68F)	Zr/SS clad fuel, failed fuel BWR MOX fuel, Thoria rods, Thoria FAs w/ Sb-Be neutron source
Holtec HI-STAR 100 (storage)	Certificate (72-1008)	vertical metal overpack w/ dual-purpose canister & 3 basket assemblies	SS, CS, Al, Holite-A Paints, Boral	96"		welded canister, bolted overpack	24 PWR 68 BWR 68F BWR	3.8 - 4.6 PWR 4.0,5.0,5.5 BWR 4.0,5.5 BWR (68F)	28.3 - 42.1 PWR 22.5 - 37.6 BWR 30 BWR (68F) (*3)	5-15 PWR 5-18 BWR 18 BWR (68F) (*3)	13.8 - 19.0 PWR 6.46 - 18.5 BWR 7.82 BWR (68F)	Zr/SS clad fuel, failed fuel BWR MOX fuel, Thoria rods, Thoria FAs w/ Sb-Be neutron source
Hi-STORM 100 (storage)	Certificate (72-1014)	3 vertical concrete casks w/ variant for high seismic applications, dual purpose canister w/ 7 baskets, 2 transfer casks	SS, CS, Concrete, Boral, Holite-A, Pb, Al Water (in transfer cask only)	132.5"		welded canister, bolted overpack	24 PWR 32 PWR 68 BWR 68F BWR	3.8 - 5 PWR 4, 5, 5.5 PWR 4, 5, 5.5 BWR (*18)	40 - 58 PWR 30 - 47.2 PWR 22.5 - 53.9 BWR 22.5 - 30 (68F) (*18)	5 - 15 PWR 5 - 18 BWR 5 - 18 BWR (*18)	17 - 28.1 PWR 28.7 PWR 12.4 BWR 7.82 (68F) (*18)	PWR control components, BWR MOX, Thoria rods, Thoria FAs w/ Sb-Be neutron source
TN-68 (transport)	Certificate (71-9293)	metal cask for transport of BWR FAs	CS, Al, SS, Al-B Alloy, Pb, Boralyn, Borated Polyester Resin (NOT NS4FR)	98"	Balsa wood and redwood in carbon steel shell w/ an aluminum spacer	bolted	68 BWR	3.7	40	10 - 28 (*18)	21.2	
TN-68 (storage)	Certificate (72-1027)	vertical metal cask on concrete pad	CS, Al, SS, Polypropylene, Al-B Alloy, Pb, Boralyn, Borated Polyester Resin (NOT NS4FR)	98"		bolted	68 BWR	3.7	40	10 - 12	21.2	
TN-FSV (*19)	Certificate (71-9253)	Steel and lead shielded shipping cask for Fort St. Vrain (FSV) and Peach Bottom-1 (PB1)	SS, Pb, Silicone/Butyl O-rings, Al, DU	31"	Balsa wood and redwood in stainless steel shell	bolted	6 FSV 1 Peach Bottom Unit 1 (PB1)	93.5 (1.4kg U w/ 11.3kg Th) FSV 93.15(0.25kg U w/ 1.5kg Th) PB1	70 - FSV 73 - PB1	1600 days FSV 27 PB1	0.36 FSV 0.12 PB1	HTGR FAs from FSV or PB1, or fuel parts from PB1
NAC-MPC (storage)	Certificate (72-1025)	vertical metal/concrete overpack w/ dual-purpose canister, transfer cask & 3 basket assemblies	SS, CS, Al, NS4FR/NS-3, Pb, Concrete, Boral, Silicone Foam	128"		welded canister, bolted overpack	34,36 PWR (YC) 24,26 PWR (CY)	3.5 - 4.97 YC 2.95 - 4.61 CY	32, 36 YC 30 - 43 CY	8.0 - 24 YC 6 CY	8.74 - 12.5 YC 17.5 CY	intact & failed YC and CY fuel, flow mixer, thimble plug assemblies, Reactor control cluster assemblies
NAC-STC (transport)	Certificate (71-9235)	metal overpack w/ dual-purpose canister, transfer cask & 3 basket assemblies(*4)	SS, Al, NS4FR, Pb, Cu, Boral/Talbor, Vitor Seals	99"	Balsa wood and redwood in stainless steel shell	bolted	26 PWR 36 PWR (YC) 24,26 PWR (CY)	4.2, 4.5 PWR 3.5 4.94 YC 3.93 - 4.61 CY	45 PWR 32, 36 YC 38, 43 CY	5 - 15 PWR 8 - 19 YC 10 CY	22.1 PWR 12.5 YC 7.7 - 17 CY	failed, Yankee Class, Connecticut Yankee fuel, GTCC waste
NAC-UMS (transport)	Certificate (71-9270)	metal overpack w/ dual-purpose canister & transfer cask(*5)	SS, Al, NS4FR, Pb, Cu, Boral	92.9"	Balsa wood and redwood in stainless steel shell	welded canister, bolted overpack	24 PWR 56 BWR	4.2 PWR 4.0 BWR	45 PWR 45 BWR	5 PWR 6 BWR	20 PWR 16 BWR	intact and damaged PWR FAs and Maine Yankee fuel debris and GTCC waste, BPRs
NAC-UMS (storage)	Certificate (72-1015)	vertical metal/concrete overpack w/ dual-purpose canister, transfer cask (*5)	SS, CS, Al, NS4FR, Pb, Concrete, Boral, Ni Coating	136"		welded canister, bolted overpack	24 PWR 56 BWR	4.2 PWR 4.0 BWR	30 - 45	5 - 15 PWR 5 - 26 BWR	23	thimble plugs, BPRs, site specific fuels, Maine Yankee fuel, damaged PWR and site specific rods/FAs
Std.NUHOMS-24P/PHB (storage)	Certificate (72-1004)	horizontal concrete storage module w/ shielded canister & transfer cask; canister has 2 types - standard and long	CS, SS, Pb, Al, Concrete	67.2"		welded	24 PWR	4.0 4.5 (*17)	38 - 45 10 - 55 (*17)	5 - 13 5 - 29.9 (*17)	24	BPRAs
Std.NUHOMS-24PT2 (storage)	Certificate (72-1004)	horizontal concrete storage module w/ shielded canister & transfer cask	CS, Ni, SS, Pb, Boral, Concrete	67.2"		welded	24 PWR	4 (*17)	38 - 45 (*17)	5 - 11 (*17)	24	BPRAs
Std. NUHOMS-52B (storage)	Certificate (72-1004)	horizontal concrete storage module w/ shielded canister & transfer cask	CS, SS, Borated SS, Pb, Polymer, Concrete	67.2"		welded	52 BWR	4 (*17)	15 - 45 (*17)	3 - 25 (*17)	19	
Std. NUHOMS-61BT (storage)	Certificate (72-1004)	horizontal concrete storage module w/ shielded canister & transfer cask; has 3 basket configurations	CS, Ni, SS, Al, B-Al Alloy/Boralyn/Boral/ Metamic, Concrete	67.3"		welded	61 BWR	3.7, 4.1, 4.4	27 - 40	5 - 10	18.3	damaged and intact BWR FAs
NUHOMS MP-197 (transport)	Under Review (71-9302)	Outer cask into which NUHOMS-61BT DSC is placed	CS, SS, Pb, Borated Polyester Resin, Al	91.5"	Balsa wood and redwood in stainless steel shell w/ aluminum thermal shield	bolted	61 BWR	3.7 4.1 4.4	27 35 37.2 40	6 12 12 15	15.86	intact BWR FAs w/ or w/o fuel channels
NUHOMS MP-187 (transport)	Certificate (71-9255)	An outer cask for 4 different dry shielded canisters, Rancho Seco assemblies w/ Zry cladding	CS, SS, Pb, NS3, Al	92.5"	Closed-cell polyurethane foam and aluminum honeycomb in stainless steel shell	bolted	24 PWR (13 failed)	3.43 4.05	23.2 - 40 35, 40, 45	5 - 17 38	13.5 14	control components, damaged fuel, WE MOX
TS125 Fuel Solutions (transport)	Certificate (71-9276)	Transportation cask for FuelSolutions W21 or W74 canister	SS,CS, Ni, Pb, NS4FR, Epoxy, Silver-jacketed Metallic O-ring Seals	94.2"	Aluminum honeycomb in stainless steel skin	welded canister, bolted overpack	20,21 PWR 64 Big Rock Point (BRP) BWR	4.6 PWR 4.7 PWR 4.9 PWR 5.0 PWR 4.1 BRP	35 PWR 60 PWR 32 BRP	15 PWR 25 PWR 6 BRP	17.6	intact, partial, or damaged PWR FAs and BRP UOX FAs and MOX FAs
FuelSolutions (*6) (storage)	Certificate (72-1026)	2 vertical metal/concrete overpack designs for W21 or W74 DSCs, and transfer cask	CS, SS, Pb, Al, Ni, Concrete, Boral, DU, Borated SS, Water (in transfer cask only)	138"		welded canister, bolted overpack	20,21 PWR 64 Big Rock Point (BRP) BWR	4.6 - 5 PWR 4.1 BWR	60 PWR 40 BWR	3.1 - 16.9 PWR 3.0 - 7.0 BWR	22 PWR 24.8 BWR	control components, failed, consolidated, MOX fuel, partial and damaged BWR fuel

Notes:

(*1) - Materials abbreviations

DU = depleted uranium B4C = boron carbide KB4 = potassium tetraborate
CS = carbon steel SS = stainless steel Al = aluminum
BSS = borated stainless steel Zn = zinc
Ni = nickel Cu = copper Pb = lead
Ti = titanium Zr = zirconium Al-B = aluminum-boron

(*2) - Primary containment boundary closures.

(*3) - Acceptable burnups are indicated by a Figure in the SAR which shows the variation of burnup, ranging from 40,000 to 55,000, with cooling time (5-15 years). Also, "F" refers to canisters with failed fuel.

(*4) - Some PWR fuel is shipped without a canister. YC (Yankee class) and CY (Connecticut Yankee) fuel and GTCC are shipped with a canister.

(*5) - Certificate is for a canister with multiple basket designs (3 PWR and 2 BWR baskets).

(*6) - Formerly Westflex Storage Cask

(*7) - dimension doesn't include impact limiters

(*17) - See tables in SAR that show the minimum cool time as a function of enrichment and burnup. These tables show the acceptable combinations of these parameters.

(*18) - See tables in Appendix to the CoC.

(*19) - Fuel canisters stored under SNM-2504.

Dimensions																			
Cask Name	MPC/Canister								Cask										
	ID (in)	OD (in)	Cavity Height (in)	Outer H (in)	Wall Thickness (in)	Base Thickness (in)	Structural Lid Thickness (in) (*10)	Max Wt (ton) (*8)	Cavity Height (in)	ID (in)	OD (in) (*7)	Height (in) (*7)	Base Thickness (in)	Structural Lid Thickness (in) (*10)	Radial N Shield Thickness (in)	Inner Shell Thickness (in)	Gamma Shield Thickness (in)	Total Wall Thickness (in) (*25)	Max Wt (ton) (*8)
HI-STAR 100 (transport)	67.4 (67.5)	68.4 (68.5)	178.5 PWR 178 BWR	190.3	0.5	2.3	9.5 PWR 10 BWR	44.5	191.1	68.8	96	203.1	6	6	4.4	2.5	6	13.6	121.5
HI-STAR 100 (storage)	67.4 (67.5)	68.4 (68.5)	178.5 PWR 178 BWR	190.3	0.5	2.3	9.5 PWR 10 BWR	44.5	191.1	68.8	96	203.1	6	6	4.4	2.5	6	13.6	121.5
Hi-STORM 100 (storage)	67.4	68.4	178.5 178	190.5	0.5	2.5	9.5 10	45	191.5 191.5 203	73.5	131 132.5 132.5	239.5 231.3 242.8	24.5 19 19	24 20.8 20.8	26.8 27.5 27.5 (*20)	1.3	26.8 27.5 27.5 (*20)	28.8 29.5 29.5	180
TN-68 (transport)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	178	69.5	98	197.3	9.8	5	6	1.5	6	14.3	113.7
TN-68 (storage)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	178	69.5	98	215	9.8	5	6	1.5	6	14.3	114.5
TN-FSV	16.6	17.6	187.3	195.3	0.5	2	1.5	2.1	199	18	31	207	5.5	2.5		1.1	3.4 (*21)	6.5	20.5
NAC-MPC	69.4	70.6	113.5 YC 142 CY	122.5 YC 151.8 CY	0.6	1.0 YC 1.8 CY	3	27.4 YC 32.9 CY	140.8 YC 169.3 CY	79	128	160 YC 190.6 CY	2.0 YC 4.0 CY (*9)	1.5	21 (*20)	3.5	21 (*20)	24.5	77.5 YC 93 CY
NAC-STC	69.4	70.6	113.5 YC 142 CY	122.5 YC 151.8 CY	0.6	1.0 YC 1.8 CY	3	27.4 YC 32.9 CY	165	71	99	193	13.7	5.3	5.5	1.5	3.7	14	121.6
NAC-UMS (transport)	65.8	67.1	163.3 - 180.0	175.1 - 191.8	0.6	1.8	3	35.3 - 38	192.5	67.6	92.9	209.3	10.3	6.5	4.5	2	2.8	12.7	115.3 - 118.6
NAC-UMS (storage)	65.8	67.1	163.3 - 180.0	175.1 - 191.8	0.6	1.8	3	35.3 - 38	189.3 - 206	74.5	136	209.2 - 225.9	2.0 (*9)	1.5	28.2 (*20)	2.5	28.2 (*20)	30.7	146.2 - 156.1
Std.NUHOMS-24P/PHB (storage)	65.9	67.2	167 173	186.2	0.6	8.7 5.9	1.3	39											
Std.NUHOMS-24PT2 (storage)	65.9	67.2	167 173	186.5 192.5	0.6	8.7 5.9	1.2	42.2 41											
Std. NUHOMS-52B (storage)	65.9	67.2	177.5	195.9	0.6	8.5	1.3	40											
Std. NUHOMS-61BT (storage)	66.3	67.3	179.3	196	0.5	7.8	1.3	44.3											
NUHOMS MP-197 (transport)									197	68	91.5	208	6.5	4.5	4.6	1.3	3.3	11.8	118.6
NUHOMS MP-187 (transport)									187	68	92.5	201.5	8	6.5	4.3	1.3	4	12.3	125
TS125 Fuel Solutions (transport)	64.8 W21 64.8 W74	66.0 W21 66.0 W74	163 - 180 W21 173 W74	182.3, 192.3 W21 192.3 W74	0.6 W21 0.6 W74	4.4 - 8.5 W21 8.5 W74	2	36.3 - 40.4 W21 37.7, 38.8 W74	193	67	94.2	210.4	11.3	6	6	1.5	3.3	13.6	124.8
FuelSolutions (storage) (*8)	64.8 W21 64.8 W74	66.0 W21 66.0 W74	163 - 180 W21 173 W74	182.3, 192.3 W21 192.3 W74	0.6 W21 0.6 W74	4.4 - 8.5 W21 8.5 W74	2	36.3 - 40.4 W21 37.7, 38.8 W74	193 183	73	138	230 220	18	14.3	30.5 (*20)	2	30.5 (*20)	32.5	167 160.5

(*7) - dimension doesn't include impact limiters

(*8) - maximum weight is with canister/cask fully loaded and excludes impact limiters

(*9) - For the NAC storage systems, this base plate doesn't rest at the base of the cask but is elevated and rests above the inlet structure built into the cask design for natural convective cooling

(*10) - Note on Structural Lid Thickness: This is thickness of lid specifically labeled as the structural lid, or the outer lid of a multi-lid system.

In some cases where the shield plug is an integral part of the lid, its thickness is included as well.

(*20) - The concrete acts as both a gamma and neutron shield.

(*21) - There is 3.44" of Pb in the wall.

(*25) - Total wall thickness includes the thickness of: the neutron shield and its jacket, the cask inner and outer shells, and the gamma shield.