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Disclaimer:

Dry Storage Cask Inventory Assessment

Spent Fuel and Waste Disposition

Prepared for
U.S. Department of Energy
Program Operation
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SUMMARY

The report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* [FCRD-NFST-2013-000263, Vinson/Metzger/Carter 2017], provides information on the inventory of commercial spent nuclear fuel (SNF) as well as Government-owned SNF and High Level Waste (HLW) in the U.S. Department of Energy (DOE) complex. Inventory forecasts for commercial SNF were made for a few selected scenarios of future commercial nuclear power generation involving the existing reactor fleet including one scenario involving reactors under construction.

This *Dry Storage Cask Inventory Assessment* report uses the data contained in FCRD-NFST-2013-000263 to define the existing inventory of SNF in dry storage. This information is integrated with data on dry storage canisters and casks from the report, *Storage and Transport Cask Data for Used Commercial Nuclear Fuel, 2013 U. S. Edition* [ATI-TR-13047 2013] in a Microsoft Access database (hereinafter referred to as the Dry Storage Cask/Inventory Database). The Dry Storage Cask/Inventory Database is used to produce queries for assessing the various systems used for the existing inventory of dry storage casks. The database and this report will be revised in the future as the inventory of fuel in dry storage changes and as additional information becomes available.

Both bare fuel and canistered dry storage casks are currently used to dry store SNF. Only 4 utilities currently use bare fuel storage systems for dry storage at 5 reactor sites. Seven unique bare fuel storage cask systems are used to store a total of 9,694 spent fuel assemblies in 212 total casks. The distribution of bare fuel casks loaded versus cask system is shown in Figure S-1.

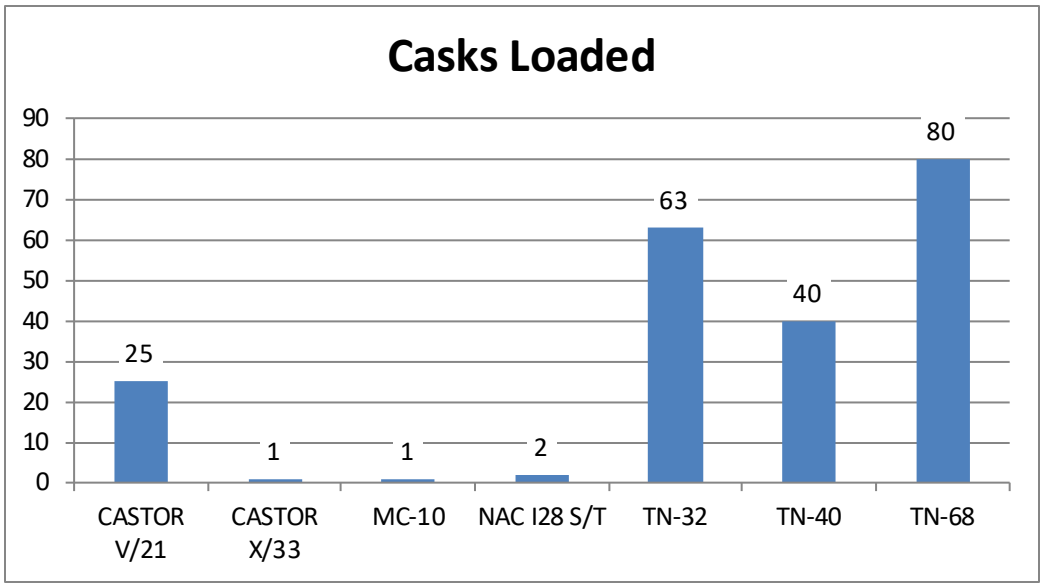

Figure S-1 Distribution of Casks Loaded Versus Bare Fuel Storage Systems

Thirty utilities currently use canistered storage systems for dry storage at 71 reactor sites. Sixteen unique canistered storage cask systems are used to store a total of 93,035 spent fuel assemblies in 2,289 total canisters. The distribution of canisters loaded versus cask system is shown in Figure S-2.

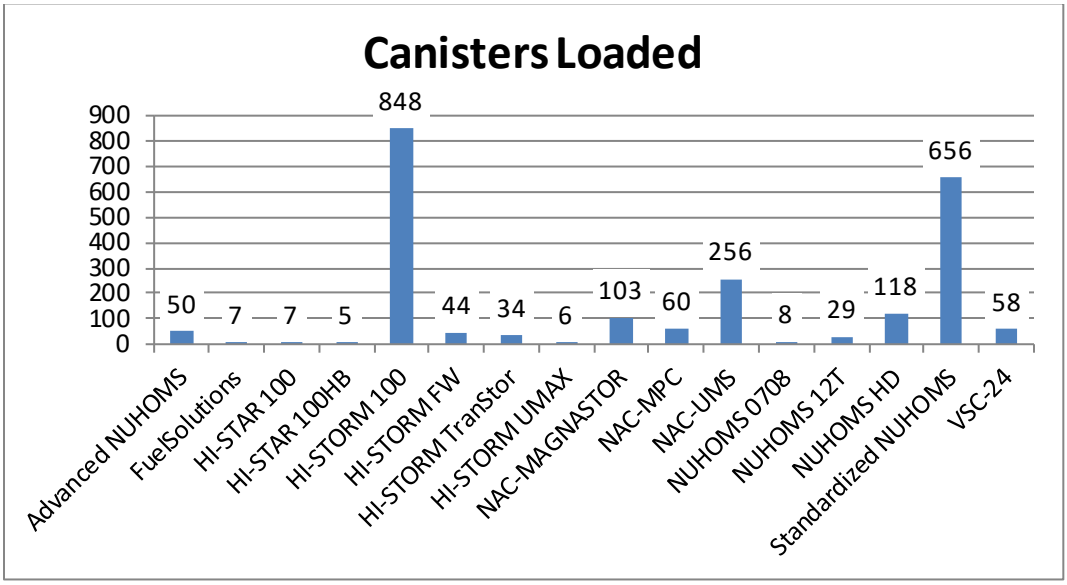

Figure S-2 Distribution of Canisters Loaded Versus Canistered Storage Systems

In many cases the canister designations listed in FCRD-NFST-2013-000263 are incomplete designations. For instance the NUHOMS 24P is available in both short and long variants; therefore, the proper designation is 24PS and 24PL. Not enough information is currently available publicly regarding the current dry storage inventory to define the canisters at this level of fidelity for all cases; therefore, in these cases, the canisters associated with the canistered storage systems in the dry storage inventory are regarded as "canister families". Possible canisters applicable to canister families are designated simply as "canisters". Because of this uncertainty, the number of unique combinations of reactor sites, storage systems and canisters in the current dry storage inventory is potentially larger than that presented in FCRD-NFST-2013-000263. A total of 34 canister families are represented by the current inventory of canistered systems in dry storage. These canister families represent a total of 54 unique canisters. Of these 54 canisters, 35 are certified for storage and transportation and 19 are currently certified only for storage. Additionally, 43 of these 54 canisters are certified under a general license and 11 are certified under a site specific license.

Similarly, in many cases, the canistered storage cask systems listed in the dry storage inventory are incomplete designations for the actual storage cask used. For instance the HI-STORM 100 system has numerous storage cask variants associated with it. Not enough information is currently available publicly regarding the current dry storage inventory to define the canistered storage casks at this level of fidelity for all cases; therefore, in these cases, the dry storage inventory is not defined beyond the storage system level. Because of this uncertainty, the number of unique combinations of reactor sites, canistered storage systems and canistered storage casks in the current dry storage inventory is potentially larger than that presented in FCRD-NFST-2013-000263. A total of 16 canistered storage cask systems are represented by the current inventory of canistered systems in dry storage. These storage cask systems represent a total of 40 unique canistered storage casks in use.

Specific transfer casks are not listed in FCRD-NFST-2013-000263. The combinations of transfer casks, storage systems and canister families are also quite large. The large number of combinations is driven primarily by the wide variety of transfer casks associated with some storage systems, particularly the Standardized NUHOMS system. Up to 12 different transfer casks are available for the Standardized NUHOMS system. Many of these transfer casks are simple adaptations of other transfer casks, e.g. the OS197FC transfer cask is identical to the OS197 transfer cask except for provisions for forced cooling of a canister during transfer operations. Up to 5 different transfer casks are available for the Holtec HI-STORM 100 system. A total of 14 canistered storage cask systems utilizing transfer casks are represented by the current inventory of canistered systems in dry storage. These storage cask systems represent a total of 33 unique transfer casks potentially available for use with the current inventory of dry storage canisters.

A total of 8 unique transportation casks are available for the 34 canister families (54 different canister types) in the current inventory. The availability of a transportation cask is dependent on the canister applicable to the canister family. A total of 20 canister families have an approved transportation cask regardless of which canister is applicable to the canister family. These canister families represent 971 canisters (42.4% of the total 2,289 canisters) and 35,216 assemblies (37.9% of the total 93,035 assemblies) in the current dry storage inventory. A total of 12 canister families do not have an approved transportation cask for any of the applicable canisters associated with the canister family. These canister families represent 549 canisters (24.0% of the total 2,289 canisters) and 17,191 assemblies (18.5% of the total 93,035 assemblies) in the current dry storage inventory. Two canister families may not have an approved transportation cask depending on which canister is applicable to the canister family. These canister families represents 769 canisters (33.6% of the total 2,289 canisters) and 40,268 assemblies (43.7% of the total 93,035 assemblies) in the current dry storage inventory.

Because many specific canisters in the current inventory are known, including many within canister families that "may have an approved transportation cask", the statistics related to the availability of transportation casks are much improved when considering the availability of transportation casks for specific canisters versus canister families. Figure S-3 graphically represents this improvement. The uncertainty (i.e. "may have an approved transportation cask") is reduced to 324 canisters from 769 canisters.

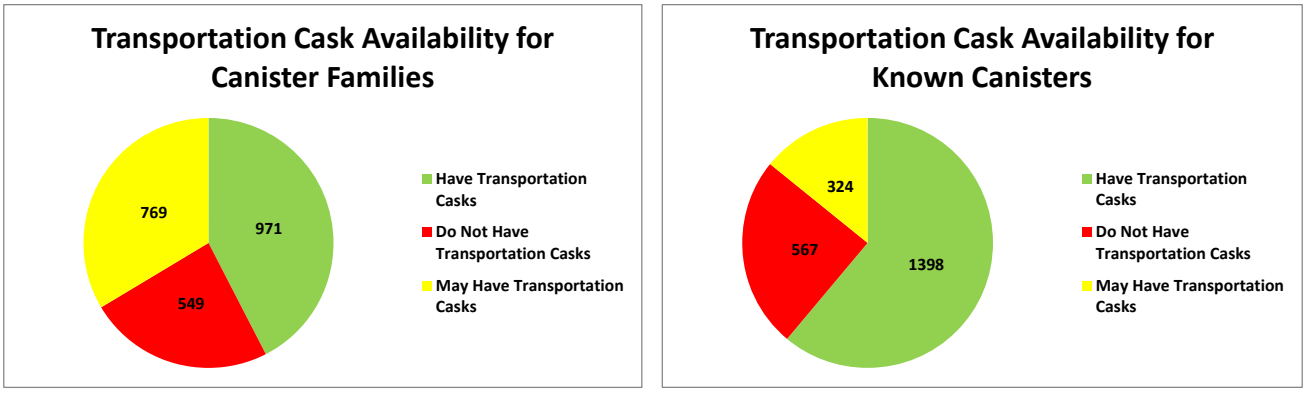

Figure S-3 Availability of Transportation Casks for Canister Families and Known Canister Types in the Current Dry Storage Inventory

During the course of developing this *Dry Storage Cask Inventory Assessment* report, several limitations with the existing knowledge base of information pertaining to the current inventory of spent fuel in dry storage were discovered. The following recommendations are made to address these limitations:

1. The primary source of cask system data for this report is the document, *Storage and Transport Cask Data for Used Commercial Nuclear Fuel, 2013 U. S. Edition*, [ATI-TR-13047 2013]. Several errors, omissions and ambiguities were discovered in this document during preparation of this report. It is recommended that these items be considered in any future revisions of ATI-TR-13047.
2. The Dry Storage Cask/Inventory Database that was developed to support this report was developed with the assumption that it would eventually be incorporated into the NFST Unified Database developed by the Oak Ridge National Laboratory. Data tables associated with Revision 1 of this report were imported into the Unified Database early in FY 2016. In conjunction with Revision 3 of this report, updated data on bare fuel casks, canisters, canistered storage casks and canistered transportation casks were transmitted to ORNL for inclusion in the Unified Database [Jones 2017]. The efforts to maintain the storage system data current in the Unified Database should be continued.
3. Inventory data to support this report is derived primarily from the document, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* [FCRD-NFST-2013-000263, Vinson/Metzger/Carter 2017]. Data was also obtained from the document, *Preliminary Evaluation of Removing Used Fuel from Shutdown Sites* [FCRD-NFST-2014-000372, Maheras 2014] as appropriate. Modifications were made to this information as described in the report. These modifications should be considered in future revisions to FCRD-NFST-2013-000263 and FCRD-NFST-2014-000372.
4. The inventory of commercial light water reactor spent fuel in dry storage should continue to be refined to provide better and more complete information relative to the specific components used to store and potentially transport the spent fuel in the future. Particular attention should be devoted to the identification of the specific canisters used to enable a more accurate assessment of the availability of transportation casks for the current inventory of spent fuel. The collection and review of cask registration letters that was begun in 2017 was very helpful in resolving the uncertainty associated with many canister families. Since utilities continue to load spent fuel into dry storage canisters, registration letters should continue to be monitored to determine specific canister types being loaded.

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SUMMARY OF REVISIONS

Revision Number	Date	Description
0	August 29, 2014	Original issue
1	August 31, 2015	Revised to incorporate current inventory data as provided in the *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* (FCRD-NFST-2013-000263, June 30, 2015, Revision 3). Specific changes made to the inventory are listed in Section 2.1. Other changes to correct errors and provide clarification include the following: Section 2, Item 4 – The inventory for GE Trojan was split into two canister groups. Although this was stated in Revision 0, the split was not made in Revision 0. Revision 1 corrects this error. Section 2, Item 7 – Changed the basis for the quantity of MTiHM stored per canister at Ranch Seco from a ratio based on the quantity of canisters loaded to a ratio based on the quantity of assemblies stored. The supporting Microsoft Access database was updated to correct errors in designating the NUHOMS MP197HB transportation cask for certain NUHOMS canisters as allowed by Certificate of Compliance 71-9302, issued April 23, 2014. These corrections affect data reported in Section 4.6 and Appendix E. The supporting Microsoft Access database was updated to delete the MAGNATRAN transport cask as an approved transportation cask for the NAC-MAGNASTOR storage system since the cask is not yet approved. The supporting Microsoft Access database was updated to revise the Site Characteristic descriptions to better agree with those defined by the Inventory Report. The NUHOMS 61BTHF canister was added as a potential canister to the NUHOMS 61BTH canister family. The TranStor canister family was split into two distinct canister families since the inventory at GE Trojan (the only reactor site to use the HI-STORM TranStor system) is known at the canister level. The current inventory (i.e. Appendix A) for Millstone was clarified as Units 2 and 3 only since these reactors are PWR reactors. Unit 1 is a BWR reactor and has not initiated dry storage. The projected inventory for Millstone 1 is included in the Appendix F inventory since Unit 1 is shut down.

SUMMARY OF REVISIONS
(continued)

Revision Number	Date	Description
2	August 31, 2016	The report and appendices were revised to incorporate current inventory data as provided in the *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* (FCRD-NFST-2013-000263, June 30, 2016, Revision 4). Specific changes made to the inventory are listed in a new section of this report, i.e. Section 2.2. The supporting Microsoft Access database (i.e. the Dry Storage Cask/Inventory Database) was updated to include the revised inventory data and to include other changes such as Certificate of Compliance status and revision/amendment information. Appendix G was added to capture the changes made to the Access database to support Revision 2 of this report. Table 4.6-1 was revised to include the NUHOMS HD Cask System and the 32PTH canister. The NUHOMS 32PTH canister was previously and erroneously included in the Standardized NUHOMS system. The projected inventory for the Pilot ISF used for Section 4.6.1 (i.e. Appendix F) was revised to include the inventory from reactors that announced their intentions to shut down since Revision 1 of the report. The inventory was revised to incorporate projected inventory data as provided in the *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* (FCRD-NFST-2013-000263, June 30, 2016, Revision 4). Other minor editorial changes were made.

SUMMARY OF REVISIONS
(continued)

Revision Number	Date	Description
3	August 31, 2017	The report and appendices were revised to incorporate current inventory data as provided in the *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* (FCRD-NFST-2013-000263, June 30, 2017, Revision 5). Specific changes made to the inventory are listed in a new section of this report, i.e. Section 2.3. The supporting Microsoft Access database (i.e. the Dry Storage Cask/Inventory Database) was updated to include the revised inventory data and to include other changes such as Certificate of Compliance status and revision/amendment information. Section 3.1 was revised to capture the changes made for Revision 3. In particular, Section 3.1.1 was added to discuss changes made resulting from a separate effort to validate data for bare fuel casks, canisters, canistered storage casks and canistered transportation casks. The projected inventory for the initial ISF used for Section 4.6.1 (i.e. Appendix F) was revised to include the inventory from reactors that announced their intentions to shut down since Revision 2 of the report. Several reactors included in the projected inventory for Revision 2 were deleted (Fitzpatrick, Clinton and Quad Cities 1 & 2) and two reactors were added (Indian Point 2 & 3). The inventory was revised to incorporate projected inventory data as provided in the *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* (FCRD-NFST-2013-000263, June 30, 2017, Revision 5). As a result of separate efforts in FY2017 to obtain cask registration letters for canisters in the current dry storage inventory, many specific canister types could be identified where previously only the canister family was known. This information is reflected in the tables in the appendices and the report itself. Tables 2.3-1 and 2.3-2 and related text document the changes resulting from this effort. Other minor editorial changes were made.

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ACRONYMS

ADAMS	Agencywide Documents Access and Management System
AEP	American Electric Power
ANO	Arkansas Nuclear One
APS	Arizona Public Service
BWR	Boiling Water Reactor
CASTOR	Cast Iron Cask for Storage and Transport of Radioactive Material
CCNPP	Calvert Cliffs Nuclear Power Plant
CoC	Certificate of Compliance
CY	Connecticut Yankee
DOE	Department of Energy
DPC	Dairyland Power Cooperative
DSC	Dry Shielded Canister
FC	Forced Cooling
FPL	Florida Power and Light
FW	Flood and Wind (in regards to the Holtec HI-STORM FW storage system)
FSAR	Final Safety Analysis Report
GTCC	Greater Than Class C
HI-STAR	Holtec International Storage, Transport and Repository
HI-STORM	Holtec International Storage Module
HI-TRAC	Holtec International Transfer Cask
HLW	High Level Waste
HSM	Horizontal Storage Module
INL	Idaho National Laboratory
ISFSI	Independent Spent Fuel Storage Installation
MAGNASTOR	Modular Advanced Generation Nuclear All-Purpose Storage
MP	Multi-Purpose
MPC	Multi-Purpose Canister
MSB	Multi-Assembly Sealed Basket
MTC	MSB Transfer Cask
MTiHM	Metric Ton Initial Heavy Metal
NFST	Nuclear Fuels Storage and Transportation
NPPD	Nebraska Public Power District
NRC	Nuclear Regulatory Commission
NUHOMS	Nuclear Horizontal Modular Storage
OPPD	Omaha Public Power District
ORNL	Oak Ridge National Laboratory
OS	On-Site (in regards to NUHOMS transfer casks)
PG&E	Pacific Gas and Electric
PPL	Pennsylvania Power and Light
PS Colorado	Public Service Company of Colorado
PSEG	Public Service Enterprise Group
PWR	Pressurized Water Reactor
SCE&G	South Carolina Electric and Gas
SMUD	Sacramento Municipal Utility District
SNF	Spent Nuclear Fuel
SONGS	San Onofre Nuclear Generating Station
STC	Storage Transport Cask

ACRONYMS
(continued)

TN	Transnuclear
TSC	Transportable Storage Canister
TVA	Tennessee Valley AuthorityUMAX Underground Maximum
UMS	Universal MPC System
VCC	Ventilated Concrete Cask
VSC	Ventilated Storage Cask
YAEC	Yankee Atomic Electric Company

DRY STORAGE CASK INVENTORY ASSESSMENT

1. INTRODUCTION

The report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* [FCRD-NFST-2013-000263, Visnon/Metzger/Carter 2017], provides information on the inventory of commercial spent nuclear fuel (SNF)as well as Government-owned SNF and High Level Waste (HLW) in the U.S. Department of Energy (DOE) complex. Inventory forecasts for commercial SNF were made for a few selected scenarios of future commercial nuclear power generation involving the existing reactor fleet including one scenario involving reactors under construction.

This *Dry Storage Cask Inventory Assessment* report uses the data contained in FCRD-NFST-2013-000263 to define the existing inventory of SNF in dry storage. SNF in wet storage (i.e. pools) is excluded from this assessment. This information is integrated with data on dry storage casks from the report, *Storage and Transport Cask Data for Used Commercial Nuclear Fuel, 2013 U. S. Edition* [ATI-TR-13047 2013], in a Microsoft Access database (hereinafter referred to as the Dry Storage Cask/Inventory Database). The Dry Storage Cask/Inventory Database is used to produce queries for assessing the various systems used for the existing inventory of dry storage casks. The queries and reports developed include the following:

- Storage casks (canistered and bare fuel) used at existing dry storage sites
- Canister designs used at existing dry storage sites
- Transfer casks applicable to the canisters used at existing dry storage sites
- Transportation casks applicable to the canisters used at existing dry storage sites

The Dry Storage Cask/Inventory Database and this report will be revised in the future as the inventory of fuel in dry storage changes and as additional information becomes available. The queries listed above and included in this report are only examples of the type of queries possible using the Dry Storage Cask/Inventory Database. Additional queries can be defined and run in the future as needed. Additional information can be added to the queries described above as well, e.g. Certificate of Compliance (CoC) number, licensing status, CoC expiration date, etc.

Section 2 provides a brief summary of the current inventory of dry storage casks for SNF as reported in FCRD-NFST-2013-000263. Section 3 describes the Dry Storage Cask/Inventory Database used for the assessment. Section 4 provides the results of the queries listed above. The database developed for this assessment is planned to be provided to the Oak Ridge National Laboratory (ORNL) for possible incorporation into the Nuclear Fuels Storage and Transportation (NFST) Unified Database.

2. CURRENT DRY STORAGE CASK INVENTORY

The current inventory of dry storage casks stored at Independent Spent Fuel Storage Installations (ISFSI) is based on data contained in the most recent revision of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263 [Vinson/Metzger/Carter 2017]. The text that follows describes the modifications made to the inventory for Revision 0 of this *Dry Storage Cask Inventory Assessment* report. Modifications to the inventory for revisions to this report subsequent to Revision 0 are described in separate sections as follows:

Section 2.1 Revision 1
Section 2.2 Revision 2
Section 2.3 Revision 3

Revision 0 Basis

The information contained in Revision 1 of FCRD-NFST-2013-000263 [Carter/Vinson 2014] and in supporting Microsoft Excel spreadsheets is current to March 2014 and is used as the basis for Revision 0 of this *Dry Storage Cask Inventory Assessment* report. The following changes to clarify or otherwise modify the dry storage inventory provided in FCRD-NFST-2013-000263, Revision 1 were made to enable integration with the Dry Storage Cask/Inventory Database developed for Revision 0 of this report. The changes made include the following:

1. All NUHOMS 24P storage canisters/casks for Duke Oconee are grouped together even though they are stored under both a general license and a site specific license. The database developed for this report splits the NUHOMS 24P inventory into two separate categories, one for the general license and one for the site specific license based on information contained in a presentation by Duke Energy to the Nuclear Regulatory Commission (NRC). [Duke Energy 2006]
2. The canister for Consumers/Big Rock Point is listed as W150. This is the designation for the FuelSolutions storage cask. The correct canister family designation is W74. [Leduc 2014b]
3. The CASTOR V/21 and CASTOR X/33 casks for Dominion Surry are grouped together for a total of 26 casks. For this report, these are split into two separate groups, one for the CASTOR V/21 and one for the CASTOR X/33. The Certificate of Compliance for Surry ISFSI lists 25 CASTOR V/21 casks. [SNM-2501] It is assumed that the remaining cask out of the 26 listed in FCRD-NFST-2013-000263 is an X/33 cask.
4. The MPC-24E and MPC-24EF canisters for Portland GE Trojan are grouped together for a total of 34 canisters. These are split into two separate groups, one for the MPC-24E canisters (29 canisters) and one for the MPC-24EF canisters (5 canisters). [Leduc 2014a]

   Revision 1 Note: The change described above was not actually implemented in Revision 0. Revision 1 corrects the error and splits the MPC-24E and MPC-24EF canisters into two separate entries in the inventory provided in Appendix A.
5. The spent fuel inventory for Fort St. Vrain is not included in the database developed for this report. The canisters used to store the Fort St. Vrain fuel are not compatible with the commercial light water reactor spent fuel casks described in the ATI-TR-13047 document.
6. The commercial light water reactor spent fuel inventory from Three Mile Island stored at the Idaho National Laboratory (INL) is included in the database for this report. This fuel is stored in commercial light water reactor casks included in the ATI-TR-13047 document (i.e. NUHOMS 12T).

7. The canisters for SMUD (Sacramento Municipal Utility District) Rancho Seco are listed as 24PT canisters. The 24PT designation is not an accurate designation for the canisters at Rancho Seco. The actual canisters at Rancho Seco are designated as FO-DSC, FC-DSC and FF-DSC in the licensing documents. The FO-DSC (fuel only) and FC-DSC (fuel and control components) each have 24 assembly positions. There is only one FF-DSC (failed fuel) and it has 13 assembly positions. These canisters are split into 3 separate groups, one for 2 FO-DSCs, a second for 18 FC-DSCs, and a third for the 1 FF-DSC. [Leduc 2014a]

   Revision 1 Note: The basis for the quantity of MTiHM stored per canister was changed from a ratio based on the quantity of Canisters Loaded to the quantity of Assemblies Stored.
8. The data contained in FCRD-NFST-2013-000263 includes dry storage canisters loaded with greater than Class C (GTCC) waste. A total of 12 GTCC canisters as listed below are deducted from the inventory and not included in the inventory used for this *Dry Storage Cask Inventory Assessment* report.
   - Connecticut Yankee/Connecticut Yankee – 3 GTCC canisters
   - Consumers/Big Rock Point – 1 GTCC canister
   - Maine Yankee/Maine Yankee – 4 GTCC canisters
   - Pacific Gas and Electric (PG&E)/Humbolt Bay – 1 GTCC canister
   - SMUD/Rancho Seco – 1 GTCC canister
   - Southern California Edison/San Onofre Nuclear Generating Station (SONGS) 1 – 1 GTCC canister
   - Yankee Atomic Electric Company (YAEC)/Yankee Rowe – 1 GTCC canister
9. In many instances, the canister designations listed in the dry storage inventory are incomplete designations. For instance the NUHOMS 24P is available in both short and long variants; therefore, the proper designation is 24PS and 24PL. Not enough information is currently available publicly about the dry storage inventory to always define the canisters at this level of fidelity; therefore, the canister designations in the dry storage inventory are regarded as "canister families". In some cases, the canister designations listed in the dry storage inventory are legitimate designations; however, variants of these canisters also exist. For instance the Holtec MPC-68 by itself is a legitimate designation; however, there are variants of this canister, i.e. the MPC-68F and MPC-68FF canisters. The information in the dry storage inventory could be interpreted to mean the actual canister listed (e.g. MPC-68); however, there are known instances for specific reactors where such a designation is used generically for all variants (e.g. Dresden uses all three variants of the MPC-68 canister in their HI-STORM 100 storage system although the dry storage inventory only lists the canister as "MPC-68"). The known use of these designations as generic designations introduces uncertainties for other instances of these designations; therefore, these types of designations are also treated as "canister families". Canisters potentially applicable to canister families are designated simply as "canisters" in this report.

The inventory of SNF in dry storage incorporating the modifications described above and as utilized for this report is shown in Appendix A.

2.1 Revision 1 Inventory Basis

The information contained in Revision 3 of FCRD-NFST-2013-000263 [Carter/Vinson 2015] and in supporting Microsoft Excel spreadsheets is current to May 2015 and is used as the basis for Revision 1 of this *Dry Storage Cask Inventory Assessment* report. The following describes the major changes resulting from the revised inventory contained in Revision 3 of FCRD-NFST-2013-000263:

1. The utility name for Calvert Cliffs, Ginna, and Nine Mile Point was changed from Constellation to Exelon.
2. The utility name for Brunswick and Robinson was changed from Progress to Duke.
3. The utility name for Waterford was changed from Exelon to Entergy.
4. The utility name, FPL, was changed to NextEra Energy.
5. Utilities/reactors that made their first ever dry canister load since Revision 0 of this report were added. The utilities/reactors added and the year loaded are:
   - Detroit Edison/Fermi 2 (2014)
   - Entergy/Pilgrim (2015)
   - First Energy/Beaver Valley (2015)
6. Utilities/reactors that had loaded fuel into dry storage prior to Revision 0 of this report but made their first dry canister load into a new/different canister design since Revision 0 of this report were added. The utilities/reactors/canisters added and the year loaded are:
   - Exelon/Nine Mile Point/NUHOMS 61BTH (2014)
   - NPPD/Cooper/NUHOMS 61BTH (2014)
7. The inventory quantities were changed for the following utilities/reactors/canister family (or bare fuel cask):
   - Dominion/Kewaunee/NUHOMS 32PT
   - Dominion/Millstone/NUHOMS 32PT
   - Dominion/North Anna/NUHOMS 32PTH
   - Dominion/Surry/NUHOMS 32PTH
   - Duke/Brunswick/NUHOMS 61BTH
   - Duke/Catawba/TSC PWR
   - Duke/McGuire/TSC PWR
   - Duke/Oconee/NUHOMS 24PHB
   - Duke/Robinson/NUHOMS 24PTH
   - Energy Northwest/Columbia/MPC-68 (HI-STORM)
   - Entergy/ANO/MPC-24 (HI-STORM)
   - Entergy/Indian Point 2 & 3/MPC-32 (HI-STORM)
   - Entergy/River Bend/MPC-68 (HI-STORM)
   - Exelon/Braidwood/MPC-32 (HI-STORM)
   - Exelon/Byron/MPC-32 (HI-STORM)
   - Exelon/Calvert Cliffs/NUHOMS 32P
   - Exelon/Dresden/MPC-68 (HI-STORM)
   - Exelon/LaSalle/MPC-68 (HI-STORM)
   - Exelon/Limerick/NUHOMS 61BTH
   - Exelon/Peach Bottom/TN-68

- Exelon/Quad Cities/MPC-68 (HI-STORM)
- First Energy/Perry/MPC-68 (HI-STORM)
- Luminant/Comanche Peak/MPC-32 (HI-STORM)
- PPL/Susquehanna/NUHOMS 61 BTH
- PSEG/Hope Creek/MPC-68 (HI-STORM)
- Southern Nuclear/Farley/MPC-32 (HI-STORM)
- Southern Nuclear/Hatch/MPC-68 (HI-STORM)
- Southern Nuclear/Vogtle/MPC-32 (HI-STORM)
- TVA/Sequoyah/MPC-32 (HI-STORM)
- Xcel Energy/Prairie Island/TN-40HT
- Zion Solutions/Zion/TSC PWR

The same changes to clarify or otherwise modify the inventory contained in Revision 1 of FCRD-NFST-2013-000263 for Revision 0 of this *Dry Storage Cask Inventory Assessment* report as described in Section 2 (with clarifications noted in the "Revision 1 Notes" in Section 2) are also applicable to Revision 3 of FCRD-NFST-2013-000263 for the current revision of this report. These changes are made to enable integration with the Dry Storage Cask/Inventory Database developed for Revision 1 of this report.

In regards to the "canister families" described in Section 2, Item 9, clarification on actual canisters used at some reactor sites has become available since Revision 0 of this report. [Gutherman 2014] The available clarifications are as follows:

- Dresden Unit 1 – The canisters stored in HI-STORM 100 overpacks are MPC-68, MPC-68F or MPC-68FF canisters. As of the date the clarifications were obtained only one MPC-68FF canister existed. It is not known if additional MPC-68FF canisters have been loaded since that time. The split between the remaining MPC-68 and MPC-68F canisters is also not known. The information provided for Dresden Unit 1 is insufficient to meaningfully modify the dry storage inventory provided by Revision 3 of FCRD-NFST-2013-000263. The use of "MPC-68" as a "canister family" cannot be discontinued for Dresden Unit 1 based on the information provided.
- Indian Point Unit 1 – All fuel is stored in MPC-32 canisters. No MPC-32F canisters are used. Although the information provided for Indian Point Unit 1 is sufficient clarification for that particular reactor, the use of "MPC-32" as a "canister family" is continued since MPC-32 canisters are designated for other reactors. The inventory data in Appendix B and Appendix F is footnoted to clarify the inventory specific to Indian Point Unit 1.
- Vermont Yankee – All fuel is stored in MPC-68 or MPC-68FF canisters. MPC-68F canisters are not used. The information provided for Vermont Yankee is insufficient to meaningfully modify the dry storage inventory provided by Revision 3 of FCRD-NFST-2013-000263. The use of "MPC-68" as a "canister family" cannot be discontinued for Vermont Yankee based on the information provided. The fact that MPC-68F canisters are not used at Vermont Yankee is footnoted in the inventory data in Appendix B and Appendix F.

2.2 Revision 2 Inventory Basis

The information contained in Revision 4 of FCRD-NFST-2013-000263 [Carter/Vinson/Wilson 2016] is current to May 3, 2016 and is used as the basis for Revision 2 of this *Dry Storage Cask Inventory Assessment* report (i.e. FCRD-NFST-2014-000602). The following describes the major changes to this report resulting from the revised inventory contained in Revision 4 of FCRD-NFST-2013-000263:

1. The utility name for Big Rock Point was changed from Consumers to Entergy.
2. Utilities/reactors that made their first ever dry load since Revision 1 of this report were added. The utilities/reactors added and the year of first load are:
   - Ameren/Callaway (2015)
   - SCE&G/V. C. Summer (2016)
3. Utilities/reactors that had loaded fuel into dry storage prior to Revision 1 of this report but made their first dry canister load into a new/different canister design since Revision 1 of this report were added. The utilities/reactors/canisters added and the year of first load are:
   - Exelon/Dresden 2 & 3/MPC-68M (2015)
   - Southern Nuclear/Hatch/MPC-68M (2015)
   - TVA/Browns Ferry/MPC-89 (2015)
   - TVA/Sequoyah/MPC-37 (2016)
4. The inventory quantities were changed for the following utilities/reactors/canister family (or bare fuel cask):
   - AEP/D. C. Cook/MPC-32 (HI-STORM)
   - APS/Palo Verde/UMS-PWR
   - Dominion/Millstone 2 & 3/NUHOMS 32PT
   - Dominion/North Anna/NUHOMS 32PTH
   - Dominion/Surry/NUHOMS 32PTH
   - Duke/Catawba/TSC PWR
   - Duke/McGuire/TSC PWR
   - Duke/Oconee/NUHOMS 24PHB
   - Entergy/ANO/MPC-24 (HI-STORM)
   - Entergy/ANO/MPC-32 (HI-STORM)
   - Entergy/Grand Gulf/MPC-68 (HI-STORM)
   - Entergy/Indian Point 2 & 3/MPC-32 (HI-STORM)
   - Entergy/Waterford/MPC-32 (HI-STORM)
   - Exelon/Braidwood/MPC-32 (HI-STORM)
   - Exelon/Byron/MPC-32 (HI-STORM)
   - Exelon/Calvert Cliffs/NUHOMS 32P
   - Exelon/Dresden 2 & 3/MPC-68 (HI-STORM)
   - Exelon/LaSalle/MPC-68 (HI-STORM)
   - Exelon/Limerick/NUHOMS 61BTH
   - Exelon/Nine Mile Point/NUHOMS 61BTH
   - Exelon/Peach Bottom 2 & 3/TN-68

- Exelon/Quad Cities/MPC-68 (HI-STORM)
- First Energy/Beaver Valley/NUHOMS 37PTH
- Luminant/Comanche Peak/MPC-32 (HI-STORM)
- PG&E/Diablo Canyon/MPC-32 (HI-STORM)
- PPL/Susquehanna/NUHOMS 61BTH
- PSEG/Salem/MPC-32 (HI-STORM)
- Southern Nuclear/Farley/MPC-32 (HI-STORM)
- Southern Nuclear/Hatch/MPC-68 (HI-STORM)
- Southern Nuclear/Vogtle/MPC-32 (HI-STORM)
- Xcel Energy/Prairie Island/TN-40HT

5. In all cases, the mass of spent fuel stored (i.e. MTiHM) was revised to reflect the inventory values contained in Appendix B of Revision 4 of FCRD-NFST-2013-000263 [Carter/Vinson/Wilson 2016]. Previously, the mass of spent fuel was calculated based on an average PWR and BWR assembly mass.

Several canister families were revised as follows to eliminate uncertainty in the inventory:

1. The MPC-68 and MPC-68F canisters for the HI-STAR storage system were originally grouped into a common Canister Family, MPC-68 (HI-STAR). These canisters now have their own unique Canister Families, MPC-68 (HI-STAR) and MPC-68F (HI-STAR). The MPC-68, MPC-68F, MPC-68FF and MPC-68M canisters for the HI-STORM storage system were grouped into a common Canister Family, MPC-68 (HI-STORM). These canisters now have their own unique Canister Families, MPC-68 (HI-STORM) and MPC-68F (HI-STORM), MPC-68FF and MPC-68M. Since Dresden and Hatch have started loading MPC-68M canisters and the UxC Consulting Company distinguishes between MPC-68 canisters and MPC-68M canisters in its StoreFUEL report [UxC 2016], the uncertainty previously associated with the MPC-68 family of canisters is no longer assumed.
2. The MSB-Short, MSB-Long and MSB-Standard canisters for the VSC-24 storage system were originally grouped into a common Canister Family, MSB. These canisters now have their own unique Canister Families, MSB-Short, MSB-Long and MSB-Standard. Since the UxC Consulting Company distinguishes between MSB-Short, MSB-Long and MSB-Standard canisters in its StoreFUEL report [UxC 2016], the uncertainty previously associated with the MSB family of canisters is no longer assumed.
3. The W74M and W74T canisters for the FuelSolutions storage system were originally grouped into a common Canister Family, W74. These canisters now have their own unique Canister Families, W74M and W74T. The only reactor site that has loaded W74 canisters is Big Rock Point. Confirmation has been received that all of the canisters at Big Rock Point are W74T canisters [Sisley 2014], which justifies splitting the original W74 Canister Family into the two unique Canister Families, thereby, removing the uncertainty associated with the W74 family of canisters.

The fuel inventory in dry storage for Dresden is uncertain in regards to its origin, i.e. Dresden 1, Dresden 2 or Dresden 3. Dresden has loaded fuel into three different types of storage systems:

- MPC-68 (HI-STAR) canisters in HI-STAR 100 overpacks,
- MPC-68 (HI-STORM) canisters in HI-STORM 100 overpacks and
- MPC-68M canisters in HI-STORM 100 overpacks.

Although complete data is not available, the fuel contained in the HI-STAR 100 system likely came from Dresden 1. Dresden 1 discharged 892 assemblies during operations. Of these 892 assemblies, 272 assemblies were placed into dry storage from the Dresden 1 pool, 3 assemblies were transferred to Idaho and the remaining 617 assemblies were transferred to the Dresden 3 pool. Of these 617 assemblies transferred to the Dresden 3 pool, 509 were placed into dry storage as of June, 2013. It seems possible, and maybe likely, that all Dresden 1 fuel is now in dry storage. It is also known that Dresden 1 fuel has been comingled with Dresden 2 fuel in the same canister, which indicates that some Dresden 1 fuel may have been transferred to the Dresden 2 pool at some time as well. For the purposes of this report, the inventory defined in Appendix A associates all of the HI-STAR 100 casks with Dresden 1 fuel assemblies and the remaining fuel assemblies/storage systems with Dresden 2 and 3 combined.

2.3 Revision 3 Inventory Basis

The information contained in Revision 5 of FCRD-NFST-2013-000263 [Vinson/Metzger/Carter 2017] is current to May 2, 2017 and is used as the basis for Revision 3 of this *Dry Storage Cask Inventory Assessment* report. The following describes the major changes to this report resulting from the revised inventory contained in Revision 5 of FCRD-NFST-2013-000263:

1. The utility name for Fitzpatrick was changed from Entergy to Exelon.
2. Utilities/reactors that made their first ever dry load since Revision 2 of this report were added. The utilities/reactors added and the year of first load are:
   - Exelon/Clinton (2016)
   - TVA/Watts Bar (2016)
3. Utilities/reactors that had loaded fuel into dry storage prior to Revision 2 of this report but made their first dry canister load into a new/different canister design since Revision 2 of this report were added. The utilities/reactors/canisters added and the year of first load are:
   - Dominion/Kewaunee/TSC PWR (2017)
   - Entergy/Palisades/MPC-37 (2016)
   - Exelon/Calvert Cliffs/32PHB (2016)
4. The inventory quantities were changed for the following utilities/reactors/canister family (or bare fuel cask):
   - APS/Palo Verde/UMS-PWR
   - Detroit Edison/Fermi 2/MPC-68 (HI-STORM)
   - Dominion/Millstone 2 & 3/NUHOMS 32PT
   - Dominion/North Anna/NUHOMS 32PTH
   - Dominion/Surry/NUHOMS 32PTH
   - Duke/Brunswick/NUHOMS 61BTH
   - Duke/Catawba/TSC PWR
   - Duke/McGuire/TSC PWR
   - Duke/Oconee/NUHOMS 24PHB
   - Duke/Robinson/NUHOMS 24PTH
   - Entergy/ANO/MPC-24 (HI-STORM)
   - Entergy/ANO/MPC-32 (HI-STORM)
   - Entergy/Indian Point 2 & 3/MPC-32 (HI-STORM)
   - Entergy/Pilgrim/MPC-68 (HI-STORM)
   - Entergy/Waterford/MPC-32 (HI-STORM)
   - Exelon/Braidwood/MPC-32 (HI-STORM)
   - Exelon/Byron/MPC-32 (HI-STORM)
   - Exelon/Dresden 2 & 3/MPC-68M
   - Exelon/Ginna/NUHOMS 32PT
   - Exelon/Limerick/NUHOMS 61BTH
   - Exelon/Oyster Creek/NUHOMS 61BTH
   - Exelon/Peach Bottom 2 & 3/TN-68

- Exelon/Quad Cities/MPC-68 (HI-STORM)
- First Energy/Perry/MPC-68 (HI-STORM)
- Luminant/Comanche Peak/MPC-32 (HI-STORM)
- Next Era Energy/Point Beach/NUHOMS 32PT
- PG&E/Diablo Canyon/MPC-32 (HI-STORM)
- PPL/Susquehanna/NUHOMS 61BTH
- PSE&G/ Hope Creek/MPC-68 (HI-STORM)
- PSEG/Salem/MPC-32 (HI-STORM)
- Southern Nuclear/Farley/MPC-32 (HI-STORM)
- Southern Nuclear/Hatch/MPC-68M
- Southern Nuclear/Vogtle/MPC-32 (HI-STORM)
- TVA/Browns Ferry/MPC-89
- TVA/Sequoyah/MPC-37
- Xcel Energy/Monticello/NUHOMS 61BTH

In addition to the inventory updates described above, the uncertainty related to specific canisters used at many reactor sites is resolved by review of cask registration letters submitted to the NRC by the utilities. Table 2.3-1 summarizes the results of this review.

Table 2.3-1 Canister Models Determined from Cask Registration Letters

Utility	Reactor	Canister Family	Canister	Quantity	Reference[1]	Remark
Dominion	Kewaunee	NUHOMS 32PT	32PT-S100	14	ML092650293, ML102010284, ML11216A132, ML11258A042, ML14245A037, ML14266A507	
		TSC PWR	TSC2 (PWR)	16	ML17108A345, ML17108A339, ML17108A342, ML17108A338, ML17125A195, ML17165A403	See Note 2
	Millstone 2 & 3	NUHOMS 32PT	32PT-S100	18	ML051010283, ML062270520, ML073180403, ML091320343, ML103300048, ML12193A100, ML12207A087	See Note 3
		NUHOMS 32PT	32PT-L125	13	ML15161A234, ML15190A344, ML15211A183, ML16235A241, ML16245A217, ML16347A011	See Note 3
Duke	Brunswick	NUHOMS 61BTH	61BTH Type 2	28	ML103270048, ML103330167, ML110460104, ML110601244, ML110670429, ML13052A273, ML13079A176, ML13142A212, ML13179A359, ML14253A223, ML14276A318, ML16118A286, ML16118A287, ML16155A293, ML16155A305, ML16172A083, ML16172A084, ML16172A086	See Note 4
	McGuire	TN-32	TN-32A	10	ML011060061, ML011280157, ML011350282, ML011560251, ML030760467, ML031190587, ML030770650, ML031190587	See Note 5

Table 2.3-1 Canister Models Determined from Cask Registration Letters (continued)

Utility	Reactor	Canister Family	Canister	Quantity	Reference[1]	Remark
Duke	Oconee	NUHOMS 24PHB	24PHBL	57	ML062290284, ML062490371, ML062770165, ML070520439, ML070520155, ML070740106, ML072340616, ML072340619, ML072400317, ML080440038, ML080460708, ML080640662, ML082030126, ML082030125, ML082320885, ML082520015, ML090340537, ML090440103, ML090650596, ML091700658, ML091940062, ML092160417, ML092260154, ML092330041, ML100430625, ML17009A021, ML101830009, ML102070560, ML102380110, ML102720690, ML110180469, ML110460028, ML110550617, ML110830038, ML11245A156, ML11229A021, ML11229A030, ML12053A010, ML12276A377, ML13058A037, ML13058A042, ML13077A019, ML13171A015, ML13179A018, ML13241A300, ML13254A158, ML14183B297, ML14225A541, ML15181A248, ML15201A503, ML15240A069, ML16189A080, ML16216A299	
	Robinson	NUHOMS 24PTH	24PTH-L	23	ML052700340, ML081620445, ML092600145, ML11192A011, ML11228A087, ML14321A010, ML16239A079, ML16258A186	
Entergy	Palisades	NUHOMS 24PTH	24PTH-S	13	ML081080539, ML081330508, ML113330608, ML113470665, ML120090276	
		NUHOMS 32PT	32PT-S125	11	ML042440622, ML042590249, ML053180358, ML053490212	
Exelon	Ginna	NUHOMS 32PT	32PT-S125	10	ML102670066, ML102950192, ML103210206, ML11327A144, ML16182A505	

Table 2.3-1 Canister Models Determined from Cask Registration Letters (continued)

Utility	Reactor	Canister Family	Canister	Quantity	Reference[1]	Remark
First Energy	Beaver Valley	NUHOMS 37PTH	37PTH-S	4	ML15107A409, ML15121A447, ML15188A333	
OPPD	Fort Calhoun	NUHOMS 32PT	32PT-S100	10	ML062260095, ML062400500, ML092400146, ML092610249	
Zion Solutions	Zion	TSC PWR	TSC4 (PWR)	61	ML14028A257, ML14049A202, ML14071A472, ML14091A264, ML14108A065, ML14126A013, ML14140A696, ML14157A010, ML14177A649, ML14206A720, ML14226A983, ML14259A379, ML14276A317, ML14303A478, ML14323A136, ML14350A221, ML15020A556	

Notes:
1. The references listed are available from the NRC's online document retrieval system, ADAMS (Agencywide Documents Access and Management System). The reference numbers listed are the NRC Accession Numbers.
2. Kewaunee has loaded 16 NAC MAGNASTOR TSC canisters according to FCRD-NFST-2013-000263. Cask registration letters indicate that TSC2 canisters are used.
3. Millstone 2 & 3 has loaded 18 32PT-S100 canisters (first load in 2005) and 13 32PT-L125 canisters (first load in 2015) for a total of 31 canisters, which agrees with the total obtained from FCRD-NFST-2013-000263.
4. Cask registration letters are available for 27 canisters at Brunswick, 1 less than that indicated in FCRD-NFST-2013-000263. It is assumed that the remaining canister is also a 61BTH Type 2 canister (28 total).
5. Although the TN-32 is a bare fuel cask and not a dry canister storage system, the review did reveal that TN-32A storage casks were loaded at McGuire.

The review of cask registration letters was very helpful in resolving the uncertainty associated with many canister families as described above. In some instances, particularly in regards to the NUHOMS 61BT canister and the 61BTH canister family, the review of the cask registration letters actually introduces more uncertainty. For instance, FCRD-NFST-2013-000263 specifically identifies nineteen 61BT canisters and 17 canisters in the 61BTH canister family for Exelon/Limerick for a total of 36 canisters. The cask registration letters identify sixteen 61BT canisters and 20 canisters in the 61BTH canister family. The total, 36 canisters, is in agreement with that provided in FCRD-NFST-2013-000263; however, the individual quantities differ. Furthermore, the canister serial numbers may imply a different distribution of canisters. Serial numbers for the canisters at Limerick are structured in three distinct ways. For example: LGS-61B-003-A, LGS-61BTH-1-C-2-013 and LGS-61BTH1-D-2-027. The first serial number type could be interpreted as indicating 61BT canisters. There are 10 canisters with this type of serial number, which does not agree with that reported in FCRD-NFST-2013-000263 (19 canisters) or with that specifically stated in the cask registration letters (16 canisters). The second and third types of serial numbers could be interpreted to indicate 61BTH Type 1 canisters (i.e. "61BTH-1" or "61BTH1"). There are 12 canisters with serial numbers of the second type and 14 canisters with serial numbers of the third type for a total of 26 canisters that could be in the 61BTH canister family. This does not agree with that indicated in FCRD-NFST-2013-000263 (17 canisters) or with that specifically stated in the cask registration letters (20 canisters). Without knowing the significance of the characters in the serial numbers, the values provided in FCRD-NFST-2013-000263 are assumed as the inventory basis for this report. The uncertainty associated with the 61BTH canister family remains.

Similar confusion regarding the 61BT canister and the 61BTH canister family exists with the following Utilities/Reactor sites:

- Exelon/Nine Mile Point
- Exelon/Oyster Creek
- NPPD/Cooper
- PPL/Susqehanna
- Xcel Energy/Monticello

A similar situation also exists for the NUHOMS 32PTH canister family at the following Utilities/Reactor sites:

- Dominion/North Anna
- Dominion/Surry
- Next Era Energy/Seabrook
- Next Era Energy/St. Lucie
- Next Era Energy/Turkey Point

In all cases, the cask registration letters specifically state that 32PTH canisters are used; however, the serial number structure may imply the use of 32PTH Type 1 canisters for some reactors. North Anna and Surry use a serial number structure like "DOM-32PTH-010-C"; whereas, Seabrook, St. Lucie and Turkey Point use a serial number structure like "FPL/FPLE 32PTH-007-C-1". The suffix "-1" in some of the serial numbers could indicate the use of a 32PTH Type 1 canister. Without knowing the significance of the characters in the serial numbers, the values provided in FCRD-NFST-2013-000263 are assumed as the inventory basis for this report. The uncertainty with the 32PTH canister family remains.

In regards to the canister families discussed in Section 2.0 (Item 9), Section 2.1 and Section 2.2, several canister families were modified to more closely represent actual canister families as defined by the storage system vendors. Through Revision 2 of this report, the Dry Storage Cask/Inventory Database had evolved by adding canister families as uncertainty in the specific application of canister types (i.e. variants) was eliminated. This approach was steadily leading to a one-to-one relationship between canister variants and canister families instead of the logical grouping of several canister variants in a single canister family. The queries in the Dry Storage Cask/Inventory Database were revised to work with this new approach. Table 2.3-2 summarizes the additions and modifications made to the canister families for Revision 3 of this report:

Table 2.3-2 Modifications and Additions to Canister Families

System	Canister	New Canister Family (Revision 3)	Original Canister Family (Revision 2)
NAC-MPC	CY-MPC, 24 Assy	CY-MPC	CY-MPC, 24 Assy
	CY-MPC, 26 Assy		CY-MPC, 26 Assy
HI-STORM (TranStor)	MPC-24E (TranStor)	MPC-24 (TranStor)	MPC-24E (TranStor)
	MPC-24EF (TranStor)		MPC-24EF (TranStor)
HI-STORM 100	MPC-32 (Diablo) [1]	MPC-32 (Diablo)	Not Applicable
HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)
	MPC-68F (HI-STAR)		MPC-68F (HI-STAR)
HI-STORM 100 HI-STORM 100U	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)
	MPC-68F (HI-STORM)		MPC-68F (HI-STORM)
	MPC-68FF		MPC-68FF
	MPC-68M		MPC-68M
VSC-24	MSB-Long	MSB	MSB-Long
	MSB-Short		MSB-Short
	MSB-Standard		MSB-Standard
Standardized NUHOMS	NUHOMS 32PHB [1,2]	NUHOMS 32PHB	Not Applicable
NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	NUHOMS 32PTH
	NUHOMS 32PTH Type 1		NUHOMS 32PTH Type 1
FuelSolutions	W21M-LD	W21	W21M-LD
	W21M-LS		W21M-LS
	W21M-SD		W21M-SD
	W21M-SS		W21M-SS
	W21T-LL		W21T-LL
	W21T-LS		W21T-LS
	W21T-SL		W21T-SL
	W21T-SS		W21T-SS
	W74M	W74	W74M
	W74T		W74T

1. Addition since Revision 2.
2. Specific for Calvert Cliffs under specific license SNM-2505.

3. DRY STORAGE CASK/INVENTORY DATABASE

The Dry Storage Cask/Inventory Database is a Microsoft Access Database used to support the development of this *Dry Storage Cask Inventory Assessment* report. The database integrates the existing dry storage cask inventory data described in Section 2 with basic physical properties and characteristics of the dry storage components. The sections that follow describe the dry storage cask data and the database structure.

3.1 Dry Storage Cask Data

Dry storage cask data used in the Dry Storage Cask/Inventory Database is derived primarily from the ATI-TR-13047 report. Some modifications to the information contained in ATI-TR-13047 were required to incorporate the data into the database. These modifications were made to correct errors, omissions and ambiguities. The modifications made to the data contained in ATI-TR-13047 include the following:

1. The ATI-TR-13047 report gives a range for Overall Length and Cavity Length for the Energy*Solutions* VSC-24 Ventilated Concrete Cask (VCC) implying that at least 2 variants exist. The renewal application for the VSC-24 [VSC-24 2007] identifies 3 different lengths for the VSC, i.e. short, standard and long. These VCCs are incorporated into the Dry Storage Cask/Inventory Database; however, some parameters, especially length, are uncertain.
2. The section on the HI-STORM 100 system (excluding the HI-STORM 100U system) does not list all available HI-STORM storage overpacks but only refers to the HI-STORM 100 system generically. There are at least 8 unique storage overpacks associated with the HI-STORM 100 system:
    - HI-STORM 100
    - HI-STORM 100A
    - HI-STORM 100S (232)
    - HI-STORM 100S (243)
    - HI-STORM 100SA (232)
    - HI-STORM 100SA (243)
    - HI-STORM 100S Version B (218)
    - HI-STORM 100S Version B (229)

    These overpacks are described in the HI-STORM Safety Analysis Report [Holtec 2013]. The storage overpacks with the "A" suffix (i.e. HI-STORM 100A, HI-STORM 100SA(232) and HI-STORM 100SA (243)) are anchored variants of their respective overpack designs. All storage overpack designs listed above are incorporated into the Dry Storage Cask/Inventory Database. Note that this list does not include the HI-STORM 100SA (229) storage overpack unique to Diablo Canyon (see Item 13 below).

3. Information pertaining to the HI-STORM 100 system in ATI-TR-13047 lists 3 out of the 4 available transfer casks as described in the HI-STORM Safety Analysis Report [Holtec 2013]. The 3 transfer casks listed are the HI-TRAC 100, the HI-TRAC 125 and the HI-TRAC 125D. The HI-TRAC 100D is not listed. The HI-TRAC 100D is incorporated into the Dry Storage Cask/Inventory Database. Another transfer cask, unique to Diablo Canyon, is also available (see Item 13 below).
4. The ATI-TR-13047 report designates the LACBWR canister for the NAC-MPC system as a "DPC" canister (presumably for Dairyland Power Cooperative). The designation "LACBWR" is used in NRC licensing documents and this *Dry Storage Cask Inventory Assessment* report as well. The NAC-MPC Certificate of Compliance (CoC) 72-1025 includes the LACBWR canister for storage of La Crosse Boiling Water reactor (BWR) spent fuel. The LACBWR canister is included in the database under the NAC-MPC system.
5. The NAC-STC transportation cask is described in the ATI-TR-13047 report under the NAC-MPC system for transporting NAC transportable storage canisters (i.e. it is discussed in the section on canistered systems). The report correctly states that spent fuel can also be directly loaded into the NAC-STC transportation cask; however, the NAC-STC transportation cask is not identified in the report specifically as a non-canistered (i.e. bare fuel) storage cask along with other bare fuel storage casks such as the NAC I28 S/T and the TN-40 casks. The Dry Storage Cask/Inventory Database treats the NAC-STC separately as a canistered dry storage cask and as a bare fuel (i.e. direct load) transportation cask. Dry storage of bare fuel in the NAC-STC is not allowed. Note that prior to Revision 3 of this *Dry Storage Cask Inventory Assessment* report, the NAC-STC (Direct Load) cask was included in the Bare Fuel Casks table of the Dry Storage Cask/Inventory Database. Revision 3 of this report moves the NAC-STC (Direct Load) cask to the Transport Casks table of the Dry Storage Cask/Inventory Database.
6. The ATI-TR-13047 report identifies a certain NUHOMS canister as the 24PTH-LC. Based on information contained in the NUHOMS Technical Specifications for the Standardized NUHOMS Horizontal Modular Storage System, it appears this designation should be 24PTH-S-LC. The designation 24PTH-S-LC is used in this *Dry Storage Cask Inventory Assessment* report.
7. The NUHOMS system is comprised of several "sub-systems" as follows:
    - Advanced NUHOMS
    - NUHOMS 0708
    - NUHOMS 12T
    - NUHOMS HD
    - Standardized NUHOMS

    These sub-systems are not distinguished in the ATI-TR-13047 report but are incorporated into the Dry Storage Cask/Inventory Database. Because these "sub-systems" are not included in the ATI-TR-13047 report, the individual horizontal storage modules (HSMs) are not associated with their applicable sub-system. Table 3.1-1 associates the sub-systems with the HSMs. Some of the HSMs listed are not identified or discussed in the ATI-TR-13047 report and are indicated in the table as such. All of the HSMs listed in the table below are incorporated into the Dry Storage Cask/Inventory Database.

Table 3.1-1 NUHOMS Horizontal Storage Modules

NUHOMS Sub-System	Horizontal Storage Module [1]	Remark
Advanced NUHOMS	Advanced HSM	Included in ATI-TR-13047
	Advanced HSM-HS	Included in ATI-TR-13047
NUHOMS 0708	07P HSM	Included in ATI-TR-13047
NUHOMS 12T	12T HSM	Included in ATI-TR-13047
NUHOMS HD	HSM-H (HD)	Per the NUHOMS HD Final Safety Analysis Report, this HSM is "virtually identical" to the HSM-H of the Standardized NUHOMS system
Standardized NUHOMS	HSM Model 80 (BWR)	Included in ATI-TR-13047
	HSM Model 80 (PWR)	Included in ATI-TR-13047
	HSM Model 102 (BWR)	Included in ATI-TR-13047
	HSM Model 102 (PWR)	Included in ATI-TR-13047
	HSM Model 152	Not included in the ATI-TR-13047 report but incorporated into the Dry Storage Cask/Inventory Database
	HSM Model 202	
	HSM-H	Included in ATI-TR-13047
	HSM-HB	This HSM, unique to Calvert Cliffs, is not included in the ATI-TR-13047 report but is incorporated into the Dry Storage Cask/Inventory Database. See Item 14 below.
	HSM-HS	Included in ATI-TR-13047

1. The expressions in parenthesis (e.g. HSM-H(HD), HSM Model 80 (PWR), etc.) are provided for the purpose of this *Dry Storage Cask Inventory Assessment* report and associated Dry Storage Cask/Inventory Database and are not part of the official storage module designations.

8. The NUHOMS 61BTH canister has three variants, the 61BTH Type 1, the 61BTH Type 2 and the 61BTHF. The designation of 61BTH without the type designations appears to be an incomplete designation based on information contained in the *Technical Specifications for the Standardized NUHOMS Horizontal Modular Storage System*, Amendment Number 11, Docket Number 72-1004. The three variants are included in the Dry Storage Cask/Inventory Database instead of the single 61BTH designation. The 61BTH designation is used for the canister family.
9. The NUHOMS 12T canister is listed as being transportable in the MP-187 transportation cask. This is not supported by the Certificate of Compliance for the MP-187 transportation cask. The Dry Storage Cask/Inventory Database lists the NUHOMS 12T canister as Storage Only.
10. The ATI-TR-13047 report is inconsistent in its treatment of the fuel types allowed for storage in the canisters. For instance, the report provides information on the Holtec canisters relative to allowable fuel (i.e. intact, damaged, debris); however, no mention is made on the restrictions placed on the NUHOMS canisters. Where information is available, data on allowable fuel content is incorporated into the Dry Storage Cask/Inventory Database.

11. Certificate of Compliance 71-9302 was approved for the NUHOMS MP197HB transportation cask on April 23, 2014 (subsequent to the issue of the ATI-TR-13047 report). The Dry Storage Cask/Inventory Database used for Revision 0 of this report incorrectly designated the MP197 transportation cask for some NUHOMS canisters. This error was corrected for Revision 1 of this report to accurately reflect the canisters allowed for transportation in the NUHOMS MP197HB transportation cask.
12. The MPC-37 and MPC-89 canisters used in the HI-STORM FW storage system (Certificate of Compliance 72-1032) and the HI-STORM UMAX storage system (Certificate of Compliance 72-1040) are variable length canisters. According to Section 2.1.1 of the Final Safety Analysis Report on the HI-STORM FW Storage System [Holtec 2015a] (hereinafter referred to as the HI-STORM FW FSAR) the length of the MPC-37 and MPC-89 canister cavities (and presumably the overall lengths) is varied to suit the fuel being stored. The minimum fuel assembly length for the MPC-37 canister per Table 2.1.1 of the HI-STORM FW FSAR is 149 inches. The reference length is 167.2 inches and the maximum is 199.2 inches, much greater than the "Reference" fuel assembly length. The minimum fuel assembly length for the MPC-89 canister per Table 2.1.1 of the HI-STORM FW FSAR is 171 inches. The reference length is 176.5 inches and the maximum is 181.5 inches.

    Table 3.1.14 of the HI-STORM FW FSAR lists the maximum overall length of the MPC-37 canister as 213 inches and 195 inches for the MPC-89 canister. The publically available, non-proprietary version of the HI-STORM FW FSAR does not provide values for the minimum overall length and the minimum and maximum cavity length. The reference values for overall length and cavity length as provided in the ATI-TR-13047 report are used in the Dry Storage Cask/Inventory Database.

    The value used in the database for overall cross section is obtained from the ATI-TR-13047 report. This value is supported by data provided in Table 3.1.14 of the HI-STORM FW FSAR; however, Table 1.1.2 in the Safety Analysis Report on the HI-STAR 190 Package (CoC 71-9373) [Holtec 2015b] lists the overall diameter as 75.75 inches. The value as provided by the ATI-TR-13047 report and supported by the HI-STORM FW FSAR is used in the Dry Storage Cask/Inventory Database.
13. The dry storage canister used at Diablo Canyon is a shorter, unique version of the Holtec MPC-32 canister. The ATI-TR-13047 report does not identify this canister. A new canister designated "MPC-32 (Diablo)" is added to the Dry Storage Cask/Inventory Database for this unique application at Diablo Canyon. A new storage overpack, the HI-STORM 100SA (229), is added specifically for Diablo Canyon. Diablo Canyon uses a modified HI-TRAC 125D transfer cask, referred to in this report and the Dry Storage Cask/Inventory Database as the HI-TRAC 125D (Diablo). The HI-TRAC 125D (Diablo) transfer cask has been added to the Dry Storage Cask/Inventory Database as part of Revision 3 of this *Dry Storage Cask Inventory Assessment* report.
14. Amendment 11 of the Calvert Cliffs specific license, SNM-2505, added a new dry storage canister, the NUHOMS 32PHB canister. The 32PHB canister is designed to accommodate 32 high burn-up PWR fuel assemblies. This canister is not identified in the ATI-TR-13047 report. A new canister designated "NUHOMS 32PHB" is added to the Dry Storage Cask/Inventory Database. A new horizontal storage module, the HSM-HB, and a new transfer cask, the CCNPP-FC, are also added specifically for Calvert Cliffs.

15. Two different lengths of dry storage canisters are used in the NAC MAGNASTOR system for BWR and PWR fuel. Four variants of these canisters designated TSC1, TSC2, TSC3 and TSC 4 are described in the NAC MAGNASTOR Final Safety Analysis Report. The ATI-TR-13047 report acknowledges the two different lengths of canisters but not the four variants. The number of canisters is increased to capture the two lengths and four variants. The canisters are designated TSC1 (BWR), TSC1 (PWR), TSC2 (BWR), TSC2 (PWR), TSC3 (BWR), TSC3 (PWR), TSC4 (BWR) and TSC4 (PWR) in the Dry Storage Cask/Inventory Database. The BWR canisters are grouped into a common canister family designated TSC BWR. Likewise, the PWR canisters are grouped into a common canister family designated TSC PWR.
16. Two different dry storage casks are used in the NAC MAGNASTOR system for BWR and PWR fuel. The NAC MAGNASTOR Final Safety Analysis Report describes four dry storage casks designated CC1, CC2, CC3 and CC 4. The ATI-TR-13047 report does not acknowledge these four storage cask variants. The number of storage casks is increased to capture these four variants. The casks are incorporated into the Dry Storage Cask/Inventory Database.
17. The transfer casks for the NAC MAGNASTOR system were changed to reflect the designations used in the MAGNASTOR Final Safety Analysis Report, i.e. MTC-1 and MTC-2. Data for the transfer casks was revised in the Dry Storage Cask/Inventory Database to agree with that found in the Final Safety Analysis Report.
18. Revision 3 of this *Dry Storage Cask Inventory Assessment* report modified the association of canisters and storage casks as follows:
    - NUHOMS 24PHBL and 24PHBS - Appendix N, Section N.1, of the Standardized NUHOMS FSAR, states that all 24PHB canister variants are stored in the HSM Model 102 storage module. Appendix V, Section V.1.2.2.1, of the Standardized NUHOMS FSAR, identifies the HSM Model 202 as an acceptable storage module. The association with other storage modules has been deleted.
    - NUHOMS 24PTH-S - Appendix P, Section P.1, of the Standardized NUHOMS FSAR, states that the 24PTH-S canister is stored in the HSM-H storage module. The association with other storage modules has been deleted.
    - NUHOMS 24PTH-L - Appendix P, Section P.1, of the Standardized NUHOMS FSAR, states that the 24PTH-L canister is stored in the HSM-H storage module. The association with other storage modules has been deleted.
    - NUHOMS 24PTH-S-LC - Appendix P, Section P.1, of the Standardized NUHOMS FSAR, states that the 24PTH-S-LC canister is stored in the HSM Model 102 or the HSM-H storage module. Appendix V, Section V.1.2.2.1, of the Standardized NUHOMS FSAR, identifies the HSM Model 202 as an acceptable storage module. The association with other storage modules has been deleted.
    - NUHOMS 32PT-S100, 32PT-L100, 32PT-S125 and 32PT-L125 - Appendix M, Section M.1, of the Standardized NUHOMS FSAR, states that all 32PT canister variants are stored in the HSM Model 80 or the HSM Model 102 storage module. Appendix V, Section V.1.2.2.1, of the Standardized NUHOMS FSAR, identifies the HSM Model 202 as an acceptable storage module. The association with other storage modules has been deleted.
    - NUHOMS 32PTH1-S - Appendix U, Section U.1, of the Standardized NUHOMS FSAR, states that the 32PTH1-S canister is stored in the HSM-H storage module. The association with other storage modules has been deleted.
    - NUHOMS 32PTH1-M - Appendix U, Section U.1, of the Standardized NUHOMS FSAR, states that the 32PTH1-M canister is stored in the HSM-H storage module. The association with other storage modules has been deleted.

- NUHOMS 32PTH1-L - Appendix U, Section U.1, of the Standardized NUHOMS FSAR, states that the 32PTH1-L canister is stored in the HSM-H storage module. The association with other storage modules has been deleted.
- NUHOMS 61BTH Type 1 - Appendix T, Section T.1, of the Standardized NUHOMS FSAR, states that the 61BTH Type 1 canister is stored in the HSM Model 80, HSM Model102, HSM Model 152, HSM Model 202 or the HSM-H storage module. The association with other storage modules has been deleted.
- NUHOMS 61BTH Type 2 - Appendix T, Section T.1, of the Standardized NUHOMS FSAR, states that the 61BTH Type 2 canister is stored in the HSM-H storage module. The association with other storage modules has been deleted.
- NUHOMS 61BTHF - Appendix T, Section T.1, of the Standardized NUHOMS FSAR, Section T.1, does not mention the 61BTHF canister specifically. The applicable storage module for the 61BTHF canister is assumed the same as for the 61 BTH Type 2 canister. The 61BTHF canister was not associated with a storage module prior to Revision 3 of this report.

The above changes have significantly reduced the uncertainty associated with storage casks.

19. Revision 3 of this *Dry Storage Cask Inventory Assessment* report modified the association of canisters and transfer casks as follows:
    - NUHOMS 24PHBL and 24PHBS - Appendix N, Section N.1, of the Standardized NUHOMS FSAR, states that all 24PHB canister variants are transferred in the OS197 or OS197H transfer cask. Appendix W, Section W.1, of the Standardized NUHOMS FSAR, identifies the OS197L as an acceptable transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 24PTH-S - Appendix P, Section P.1, of the Standardized NUHOMS FSAR, states that the 24PTH-S canister is transferred in the OS197, OS197H or OS197FC transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 24PTH-L - Appendix P, Section P.1, of the Standardized NUHOMS FSAR, states that the 24PTH-L canister is transferred in the OS197, OS197H or OS197FC transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 24PTH-S-LC - Appendix P, Section P.1, of the Standardized NUHOMS FSAR, states that the 24PTH-S-LC canister is transferred in the Standardized transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 32PT-S100, 32PT-L100, 32PT-S125 and 32PT-L125 - Appendix M, Section M.1, of the Standardized NUHOMS FSAR, states that all 32PT canister variants are transferred in the OS197 or OS197H transfer cask. Appendix W, Section W.1, of the Standardized NUHOMS FSAR, identifies the OS197L as an acceptable transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 32PTH1-S - Appendix U, Section U.1, of the Standardized NUHOMS FSAR, states that the 32PTH1-S canister is transferred in the OS200 or OS200FC transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 32PTH1-M - Appendix U, Section U.1, of the Standardized NUHOMS FSAR, states that the 32PTH1-M canister is transferred in the OS200 or OS200FC transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 32PTH1-L - Appendix U, Section U.1, of the Standardized NUHOMS FSAR, states that the 32PTH1-L canister is transferred in the OS200 or OS200FC transfer cask. The association with other transfer casks has been deleted.
    - NUHOMS 61BTH Type 1 - Appendix T, Section T.1, of the Standardized NUHOMS FSAR, states that the 61BTH Type 1 canister is transferred in the OS197, OS197H or OS197FC-B transfer cask. The association with other transfer casks has been deleted.

- NUHOMS 61BTH Type 2 - Appendix T, Section T.1, of the Standardized NUHOMS FSAR, states that the 61BTH Type 2 canister is transferred only in the OS197FC-B transfer cask. The association with other transfer casks has been deleted.
- NUHOMS 61BTHF - Appendix T, Section T.1, of the Standardized NUHOMS FSAR, Section T.1, does not mention the 61BTHF canister specifically. The applicable transfer cask for the 61BTHF canister is assumed the same as for the 61 BTH Type 2 canister. The 61BTHF canister was not associated with a transfer cask prior to Revision 3 of this report.

The above changes have significantly reduced the uncertainty associated with transfer casks.

The modifications listed above should be considered in future revisions of the ATI-TR-13047 report.

3.1.1 Dry Storage Cask Data Validation

As stated in Section 3.1, the dry storage cask data used in the Dry Storage Cask/Inventory Database is derived primarily from the ATI-TR-13047 report. Section 3.1 describes modifications to the information contained in the ATI-TR-13047 report that have been incorporated into the Dry Storage Cask/Inventory Database. Some of the modifications described in Section 3.1 result from a review of the data contained in the ATI-TR-13047 report against more reputable sources such as Certificates of Compliance, Technical Specifications and Final Safety Analysis Reports. This review, conducted in FY 2017, is documented in the report, *Updated Cask and Canister Information for the Unified Database* [Jones 2017]. The scope of the review included the following data tables from the Dry Storage Cask/Inventory Database:

- Bare Fuel Casks
- Canisters
- Canistered Storage Casks
- Canistered Transportation Casks

In addition to some of the modifications described in Section 3.1, the review also resulted in the addition of several new data fields. The following new data fields were added:

- Bare Fuel Casks:
  Transportation Licensing Status, Transportation License Expiration Date, Storage License Expiration Date
- Canisters:
  Storage License Status, Storage License Expiration Date, Transportation Licensing Status, Transportation License Expiration Date
- Canistered Storage Casks:
  HSM Length, HSM Height, HSM Width, Transportation Licensing Status, Transportation License Expiration Date, Storage License Expiration Date
  (The data fields for HSM length, width and height were added to better capture the dimensions of the cuboid shaped HSMs versus the cylindrical shape of other storage overpacks. Previously, only data fields for storage overpack length and diameter were provided.)
- Canistered Transportation Casks:
  Transportation License Expiration Date

The review also included the addition or modification of several new storage system components, some of which have already been discussed in Section 3.1. The following storage system components were added or modified:

- Bare Fuel Casks:
  No new components added or modified.
- Canisters:
  The Holtec MPC-32 (Diablo) and NUHOMS 32PHB canisters are added.

  The TSC (BWR) and TSC (PWR) canisters for the NAC MAGNASTOR system are revised as follows. The original TSC (BWR) canister is changed to the TSC1 (BWR) canister. The original TSC (PWR) canister is changed to the TSC1 (PWR) canister. The TSC2 (BWR), TSC2 (PWR), TSC3 (BWR), TSC3 (PWR), TSC4 (BWR) and TSC4 (PWR) canisters are added.
- Canistered Storage Casks:
  The HI-STAR 190 is split into two separate entries, one for the HI-STAR 190 Version SL and the other for the HI-STAR 190 Version XL. Note that this was done for the HI-STAR 190 in the Canistered Transportation Casks in Revision 2 of this *Dry Storage Cask Inventory Assessment* report but not for the HI-STAR 190 in the Canistered Storage Casks. Revision 3 of this report corrects this oversight.

  The HI-STORM 100SA is split into two separate entries, one for the HI-STORM 100SA (232) storage overpack and the other for the HI-STORM 100SA (243) storage overpack.

  The existing two NAC-MAGNASTOR Vertical Concrete Casks (BWR and PWR) are split into four separate entries - Vertical Concrete Cask CC1, Vertical Concrete Cask CC2, Vertical Concrete Cask CC3 and Vertical Concrete Cask CC4.
- Canistered Transportation Casks:
  No new components added.

Other modifications to the data based on the review documented in the report, *Updated Cask and Canister Information for the Unified Database*, are too numerous to list here. The reader is referred to the report, *Updated Cask and Canister Information for the Unified Database* and its accompanying spreadsheets for further details [Jones 2017].

3.2 Database Structure

The Dry Storage Cask/Inventory Database is structured around the primary components of the dry storage systems. The top element (i.e. table) of the database is the Cask Systems. Cask Systems are subdivided into tables for Canistered Systems, Bare Fuel Systems and Transport Only Casks (i.e. spent fuel casks not certified for storage). Bare Fuel Systems and Transport Only Casks are treated without further subdivision; however, the Canistered Systems are further subdivided into tables applicable to the following components:

- Canisters
- Transfer Casks
- Transportation Casks

The current Dry Storage Inventory data is contained in a table linked back to the system and components tables as necessary. Junction tables are used where necessary to establish many-to-many relationships. This basic structure is shown graphically in Figure 3.2-1. Not all table linkages are shown for clarity.

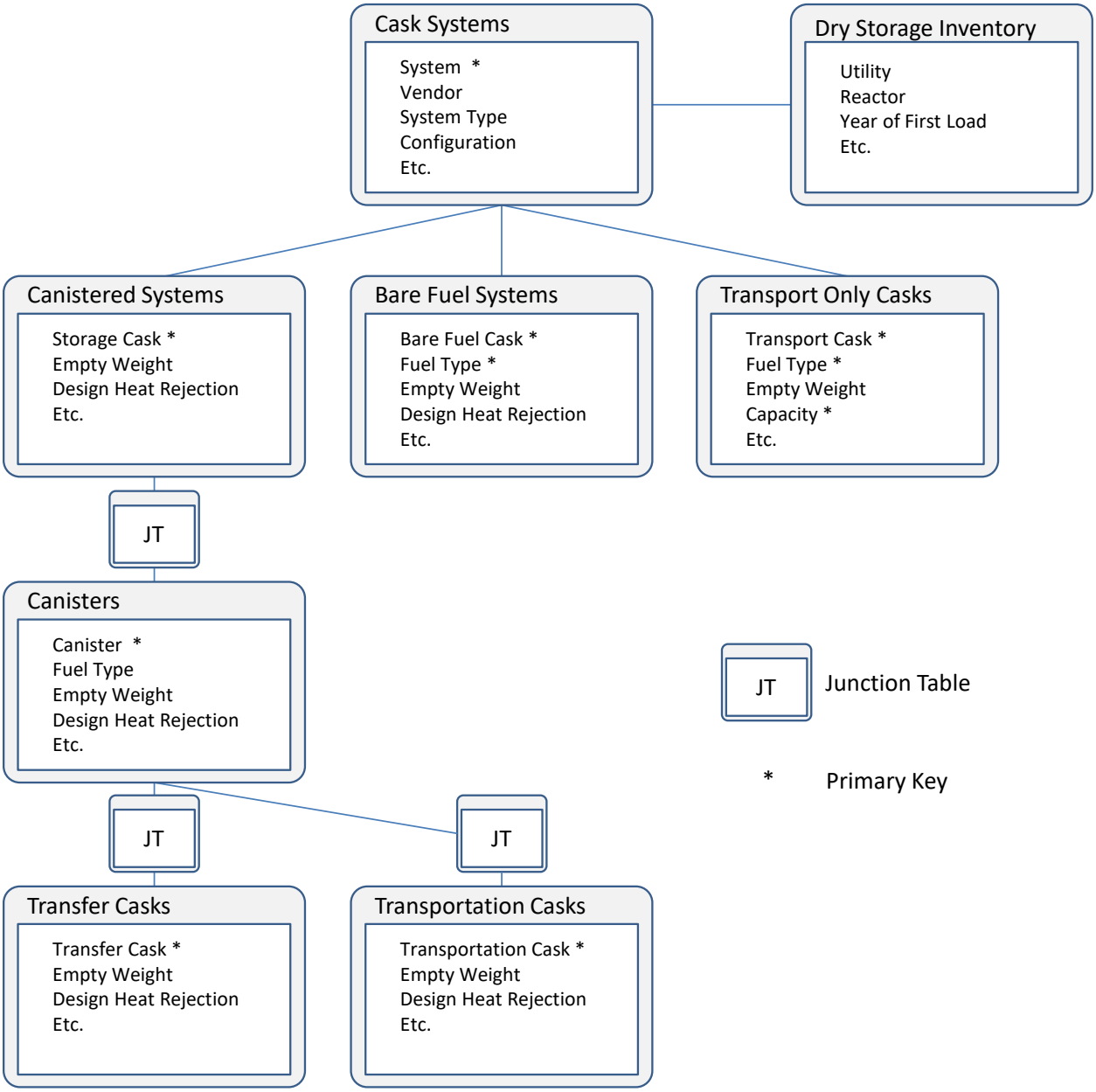

Figure 3.2-1 Dry Storage Cask/Inventory Database Structure

4. CASK INVENTORY ASSESSMENT

The Dry Storage Cask/Inventory Database was queried to assess the current inventory of dry storage casks described in Section 2. The following queries were developed:

1. Bare fuel storage systems used in the current inventory of dry storage casks
2. Canistered storage systems used in the current inventory of dry storage casks
3. Canisters associated with the canister families identified in the current inventory of dry storage casks
4. Storage casks associated with the canister families identified in the current inventory of dry storage casks
5. Transfer casks associated with the canister families identified in the current inventory of dry storage casks
6. Transportation casks associated with the canister families identified in the current inventory of dry storage casks

The results of these queries are discussed in the sections that follow.

4.1 Bare Fuel Storage Systems

The inventory of bare fuel storage systems currently used for dry storage of SNF is small compared to the number of canistered systems deployed (see Section 4.2). Table 4.1-1 shows the bare fuel storage systems currently deployed.

Table 4.1-1 Bare Fuel Storage Systems

Utility	Reactor	Site Characteristic [1]	Cask System	Licensed Purpose	Casks Loaded [3]	Assemblies [4]	MTiHM [4]
Dominion	North Anna	C2	TN-32	Storage Only	27	864	400.3
Dominion	Surry	C2	CASTOR V/21	Storage Only	25	525	240.8
Dominion	Surry	C2	CASTOR X/33	Storage Only	1	33	15.1
Dominion	Surry	C2	MC-10	Storage Only	1	24	11.0
Dominion	Surry	C2	NAC I28 S/T	Storage Only	2	56	25.7
Dominion	Surry	C2	TN-32	Storage Only	26	832	381.7
Duke	McGuire	C2	TN-32 (Note 2)	Storage Only	10	320	143.9
Exelon	Peach Bottom 2 & 3	C2	TN-68	Storage and Transportation	80	5,440	977.0
Xcel Energy	Prairie Island	C2	TN-40 (Note 3)	Storage and Transportation	11	440	160.6
			TN-40 (Note 3)	Storage and Transportation	29	1160	423.4
4 Total Utilities	5 Total Reactor Sites	9 Total Reactor/Cask System Combinations With All Reactors Operating and Wet and Dry Storage	7 Unique Cask Systems Used	3 Reactor/Cask System Combinations Licensed for Storage and Transportation	212 Casks Loaded	9,694 Assemblies Loaded	2,778.5 MTiHM Loaded
				7 Reactor/Cask System Combinations Licensed for Storage Only			
10 Total Unique Utility/Reactor/Cask System Combinations							

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as follows:
   - C2 - All Reactors Operating - Wet and Dry Storage
2. The TN-32 casks used at McGuire are TN-32A models (see Table 2.3-1 for a list of references to the cask registration letters).
3. The TN-40 Cask System is listed twice for Xcel Energy/Prairie Island since more than one version of the TN-40 cask is used (e.g. TN-40 and TN-40HT). Twenty-nine TN-40 casks are loaded and 11 TN-40HT casks are loaded.
4. The inventory is current to the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* FCRD-NFST-2013-000263. See Section 2 for further explanation.

Only 4 utilities currently use bare fuel storage systems for dry storage at 5 reactor sites. Seven unique bare fuel storage cask systems are used to store a total of 9,694 spent fuel assemblies in 212 total casks. The Transnuclear bare fuel casks (TN-68) continue to be loaded. The distribution of Bare Fuel Casks Loaded and Assemblies versus Cask System is shown in Figures 4.1-1 and 4.1-2 respectively.

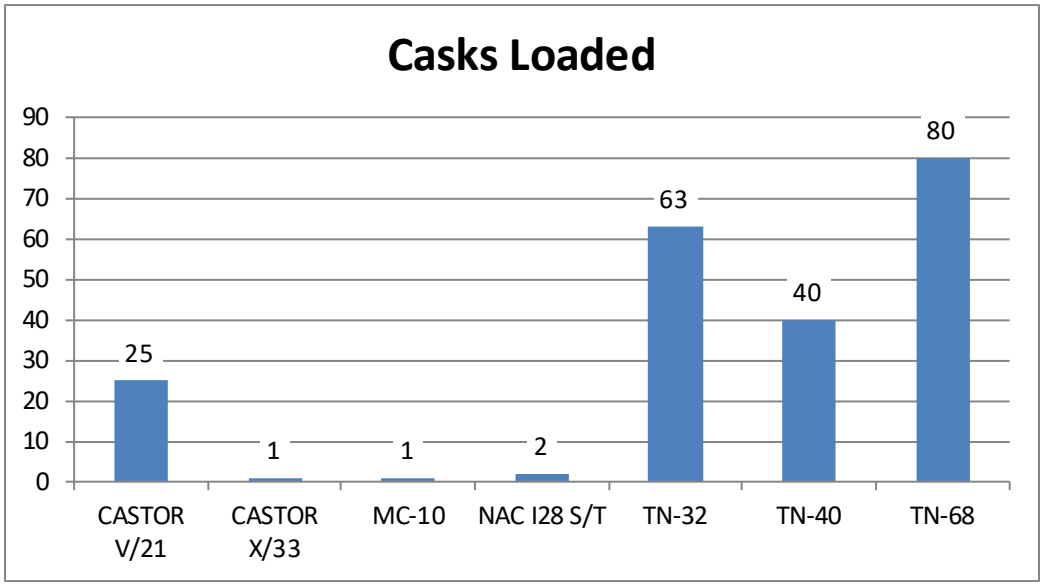

Figure 4.1-1 Distribution of Casks Loaded Versus Bare Fuel Storage Systems

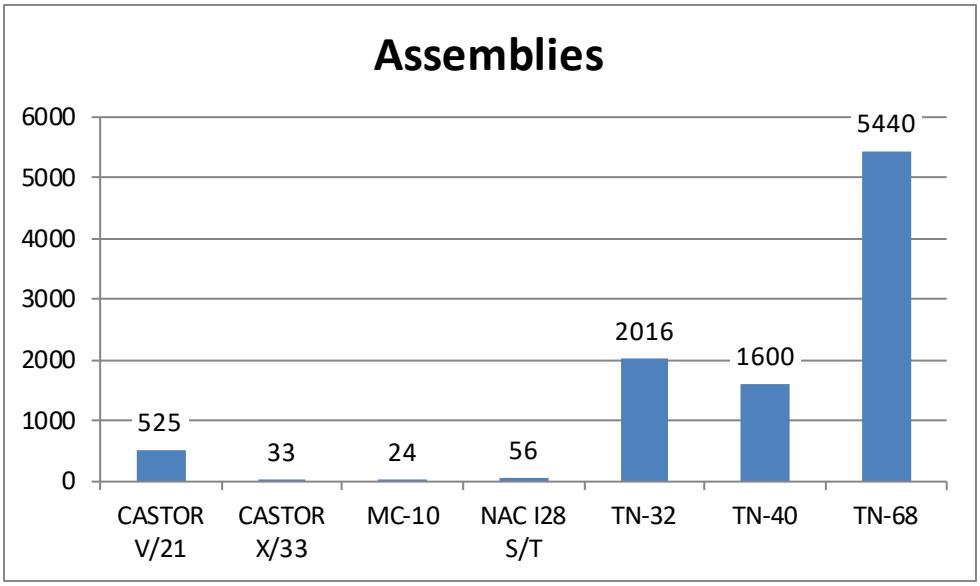

Figure 4.1-2 Distribution of Assemblies Versus Bare Fuel Storage Systems

4.2 Canistered Storage Systems

The majority of the current inventory of spent fuel in dry storage is stored in canistered storage systems. Table 4.2-1 shows the canistered storage systems currently deployed.

Table 4.2-1 Canistered Storage Systems

Utility	Reactor	Site Characteristic[1]	Cask System[2]	Canister Family[3]	Canister[4]	Canisters Loaded[5]	Assemblies[5]	MTiHM[5]
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)		28	896	393.0
Ameren	Callaway	C2	HI-STORM UMAX	MPC-37	MPC-37	6	222	94.0
APS	Palo Verde	C2	NAC-UMS	UMS-PWR		144	3456	1,485.0
Connecticut Yankee	Connecticut Yankee	A1	NAC-MPC	CY-MPC	CY-MPC, 26 Assy	40	1019	413.5
Dairyland Power	La Crosse	A1	NAC-MPC	LACBWR	LACBWR	5	333	38.0
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	12	816	143.0
DOE	INL	ISFSI Only	NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	29	177	83.0
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	16	592	230.0
Dominion	Kewaunee	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	14	448	174.0
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	13	416	176.6
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	18	576	244.5
Dominion	North Anna	C2	NUHOMS HD	NUHOMS 32PTH		31	992	459.7
Dominion	Surry	C2	NUHOMS HD	NUHOMS 32PTH		29	928	425.7
Duke	Brunswick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	28	1708	340.0
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR		10	370	165.4
Duke	Catawba	C2	NAC-UMS	UMS-PWR		24	576	257.6
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR		16	592	266.1
Duke	McGuire	C2	NAC-UMS	UMS-PWR		28	672	302.1

Table 4.2-1 Canistered Storage Systems (continued)

Utility	Reactor	Site Characteristic[1]	Cask System[2]	Canister Family[3]	Canister[4]	Canisters Loaded[5]	Assemblies[5]	MTiHM[5]
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P		40	960	447.4
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P		44	1056	492.1
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	57	1368	637.5
Duke	Robinson	C2	NUHOMS 0708	NUHOMS 07P	NUHOMS 07P	8	56	24.2
Duke	Robinson	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	23	552	238.8
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	36	2448	431.0
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)		30	720	317.4
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)		25	800	352.7
Entergy	ANO	C2	VSC-24	MSB	MSB-Long	24	576	253.9
Entergy	Big Rock Point	A1	FuelSolutions	W74	W74T	7	441	57.9
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	28	1904	336.0
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)		5	160	30.6
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)		31	992	451.0
Entergy	Palisades	C2	HI-STORM FW	MPC-37	MPC-37	4	148	60.8
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S	13	312	128.2
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	11	352	144.6
Entergy	Palisades	C2	VSC-24	MSB	MSB-Standard	18	432	177.5
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	8	544	97.0
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	23	1564	277.0
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	13	884	160.0
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)		23	736	310.0
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)		18	576	242.0
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)		26	832	350.0

Table 4.2-1 Canistered Storage Systems (continued)

Utility	Reactor	Site Characteristic[1]	Cask System[2]	Canister Family[3]	Canister[4]	Canisters Loaded[5]	Assemblies[5]	MTiHM[5]
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P		48	1152	451.3
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32P	NUHOMS 32P	30	960	376.1
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32PHB	NUHOMS 32PHB	3	96	37.6
Exelon	Clinton	C2	HI-STORM FW	MPC-89	MPC-89	6	534	96.0
Exelon	Dresden 1	B2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	4	272	27.7
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	60	4080	718.2
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	8	544	95.8
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	21	1428	258.0
Exelon	Ginna	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	10	320	118.0
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	24	1632	292.0
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	19	1159	206.4
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH		17	1037	184.6
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	16	976	172.7
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH		8	488	86.3
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	8	488	86.5
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH		19	1159	205.5
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	48	3264	580.0
FirstEnergy	Beaver Valley	C2	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	4	148	68.0
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P		3	72	34.0
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	20	1360	245.0
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)		29	928	390.0
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR		60	1434	542.3

Table 4.2-1 Canistered Storage Systems (continued)

Utility	Reactor	Site Characteristic[1]	Cask System[2]	Canister Family[3]	Canister[4]	Canisters Loaded[5]	Assemblies[5]	MTiHM[5]
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	20	1220	221.0
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT		28	896	343.7
NextEra Energy	Point Beach	C2	VSC-24	MSB	MSB-Short	16	384	147.3
NextEra Energy	Seabrook	C2	NUHOMS HD	NUHOMS 32PTH		14	448	205.0
NextEra Energy	St. Lucie	C2	NUHOMS HD	NUHOMS 32PTH		26	832	324.0
NextEra Energy	Turkey Point	C2	NUHOMS HD	NUHOMS 32PTH		18	576	263.0
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	8	488	88.0
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH		10	610	110.0
OPPD	Fort Calhoun	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	10	320	118.0
PG&E	Diablo Canyon	C2	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	49	1568	675.0
PG&E	Humboldt Bay	A1	HI-STAR 100HB	MPC-HB	MPC-HB	5	390	28.9
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	29	675	306.6
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	5	116	52.7
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	27	1404	247.9
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	48	2928	517.1
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH		22	1342	237.0
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	29	1972	354.0
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)		27	864	397.0
SCE&G	V. C. Summer	C2	HI-STORM FW	MPC-37	MPC-37	4	148	63.0
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	18	432	200.1
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC	1	13	6.0
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC	2	48	22.2

Table 4.2-1 Canistered Storage Systems (continued)

Utility	Reactor	Site Characteristic[1]	Cask System[2]	Canister Family[3]	Canister[4]	Canisters Loaded[5]	Assemblies[5]	MTiHM[5]
Southern Cal Edison	SONGS 1	A2	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	17	395	160.1
Southern Cal Edison	SONGS 2	A2	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	33	792	320.9
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)		42	1344	590.0
Southern Nuclear	Hatch	C2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	3	204	36.7
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	60	4080	734.0
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	10	680	122.3
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)		26	832	359.0
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	45	3060	552.6
TVA	Browns Ferry	C2	HI-STORM FW	MPC-89	MPC-89	19	1691	305.4
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)		44	1408	644.3
TVA	Sequoyah	C2	HI-STORM FW	MPC-37	MPC-37	5	185	84.7
TVA	Watts Bar	C2	HI-STORM FW	MPC-37	MPC-37	6	222	102.0
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	10	610	105.6
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH		6	366	63.4
YAEC	Yankee Rowe	A1	NAC-MPC	Yankee-MPC	Yankee-MPC	15	533	127.1
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	61	2226	1,019.4
30 Total Utilities	71 Total Reactor Sites		16 Cask Systems Used	34 Canister Families		2,289 Total Canisters Loaded	93,035 Total Assemblies Loaded	27,235.6 MTiHM Loaded
101 Total Combinations of Utilities, Reactors and Cask Systems								

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - C2 - All Reactors Operating - Wet and Dry Storage

   "ISFSI Only" is used in the table above for INL since the INL ISFSI is not at a reactor site.
2. Some Cask Systems are listed twice for a given reactor since more than one canister type is used for a given system. See Appendix A and Appendix B for the specific canisters used and their licensed purpose.
3. See Section 4.3, Appendix A, or Appendix B for the Licensed Purpose of the canisters associated with the canister families listed in the table.
4. The specific Canister variant is listed where known; otherwise, only the Canister Family is listed.
5. The inventory is current to the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* FCRD-NFST-2013-000263. See Section 2 for further explanation.

Thirty utilities currently use canistered storage systems for dry storage at 71 reactor sites. Sixteen unique canistered storage cask systems are used to store a total of 93,035 spent fuel assemblies in 2,289 total canisters. A total of 101 unique combinations of reactor sites and storage systems are present in the current inventory of spent fuel in dry storage. The distribution of canisters loaded and assemblies versus cask system is shown in Figures 4.2-1 and 4.2-2 respectively.

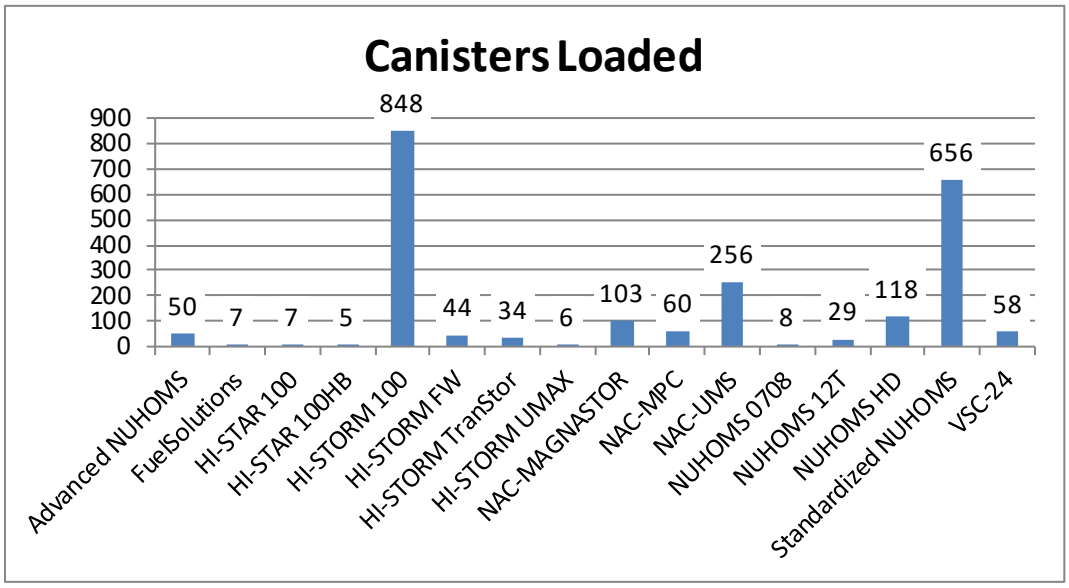

Figure 4.2-1 Distribution of Canisters Loaded Versus Canistered Storage Systems

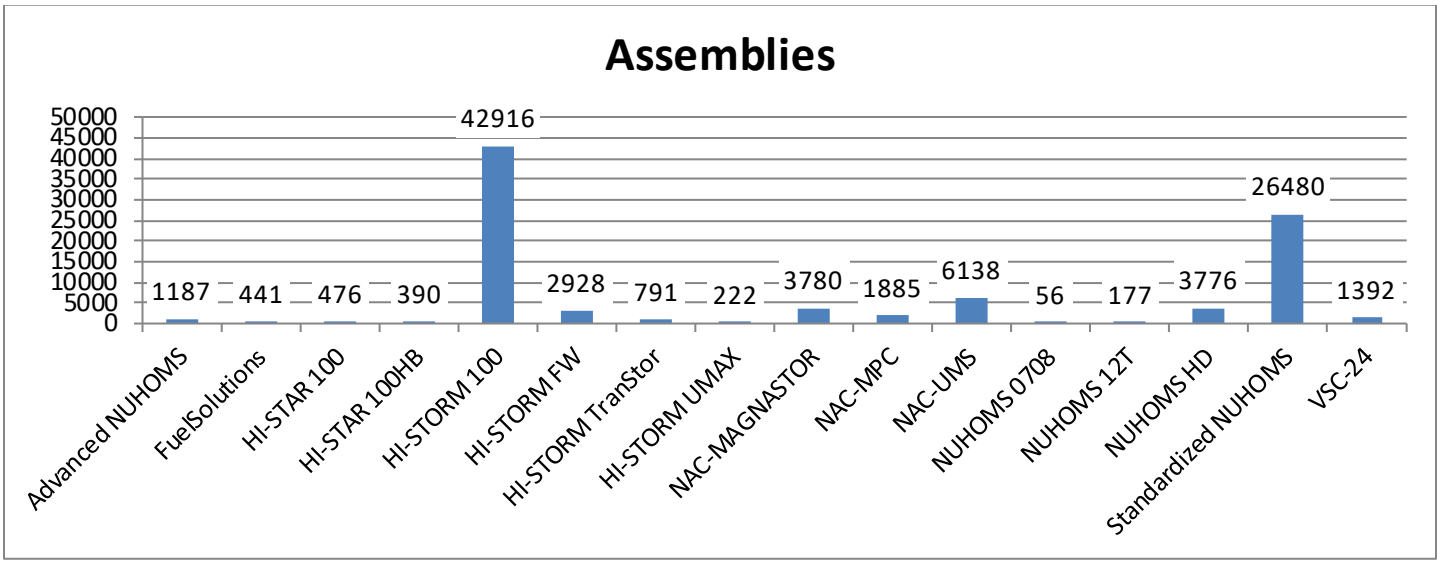

Figure 4.2-2 Distribution of Assemblies Versus Canistered Storage Systems

4.3 Canister Types Currently in Dry Storage

As discussed in Section 2, in many cases the canister designations listed in the dry storage inventory are incomplete designations. For instance the NUHOMS 24P is available in both short and long variants; therefore, the proper designation is 24PS and 24PL. Not enough information is currently available publicly regarding the current dry storage inventory to define the canisters at this level of fidelity for all cases; therefore, in these cases, only "canister families" are listed. Because of this uncertainty, the number of unique combinations of reactor sites, storage systems and canisters in the current dry storage inventory could be up to 153, larger than the 101 combinations of reactor sites, storage systems and canister families discussed in Section 4.2.

Appendix B provides a list of the 153 combinations of reactor sites, storage systems and canisters. The following can be observed from the information contained in Appendix B:

- A total of 34 canister families are represented by the current inventory of canistered systems in dry storage.
- These canister families represent a total of 54 unique canisters. These canisters are listed in Table 4.3-1 below.
- Of these 54 canister types, 35 are certified for storage and transportation and 19 are certified for storage only.
- Of these 54 canister types, 43 are certified under a general license and 11 are certified under a site specific license.

Table 4.3-1 Canisters Currently in Dry Storage

Cask System	Canister Family	Canister	Licensed Purpose	License Type
Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	Storage and Transportation	General License
	NUHOMS 24PT4	NUHOMS 24PT4	Storage and Transportation	General License
FuelSolutions	W74	W74T	Storage and Transportation	General License
HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	Storage and Transportation	General License
HI-STAR 100HB	MPC-HB	MPC-HB	Storage and Transportation	Site Specific
HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	Storage and Transportation	General License
		MPC-24E (HI-STORM)	Storage and Transportation	General License
		MPC-24EF (HI-STORM)	Storage and Transportation	General License
	MPC-32 (Diablo)	MPC-32 (Diablo)	Storage and Transportation	Site Specific
	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
		MPC-32F	Storage Only	General License
	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
		MPC-68M	Storage Only	General License
HI-STORM FW	MPC-37	MPC-37	Storage Only	General License
	MPC-89	MPC-89	Storage Only	General License
HI-STORM UMAX	MPC-37	MPC-37	Storage Only	General License
HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	Storage and Transportation	Site Specific
	MPC-24 (TranStor)	MPC-24EF (TranStor)	Storage and Transportation	Site Specific
NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Storage Only	General License
		TSC2 (PWR)	Storage Only	General License
		TSC3 (PWR)	Storage Only	General License
		TSC4 (PWR)	Storage Only	General License
NAC-MPC	CY-MPC	CY-MPC, 26 Assy	Storage and Transportation	General License
	LACBWR	LACBWR	Storage and Transportation	General License
	Yankee-MPC	Yankee-MPC	Storage and Transportation	General License
NAC-UMS	UMS-PWR	TSC-Class 1	Storage and Transportation	General License
		TSC-Class 2	Storage and Transportation	General License
		TSC-Class 3	Storage and Transportation	General License
NUHOMS 0708	NUHOMS 07P	NUHOMS 07P	Storage Only	Site Specific
NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	Storage Only	Site Specific
NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	Storage and Transportation	General License
		NUHOMS 32PTH Type 1	Storage and Transportation	General License
Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Storage Only	General License
		NUHOMS 24PS	Storage Only	General License
	NUHOMS 24PHB	NUHOMS 24PHBL	Storage Only	General License

Table 4.3-1 Canisters Currently in Dry Storage (continued)

Cask System	Canister Family	Canister	Licensed Purpose	License Type
Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	Storage and Transportation	General License
		NUHOMS 24PTH-S	Storage and Transportation	General License
	NUHOMS 32P	NUHOMS 32P	Storage Only	Site Specific
	NUHOMS 32PHB	NUHOMS 32PHB	Storage Only	Site Specific
	NUHOMS 32PT	NUHOMS 32PT-L100	Storage and Transportation	General License
		NUHOMS 32PT-L125	Storage and Transportation	General License
		NUHOMS 32PT-S100	Storage and Transportation	General License
		NUHOMS 32PT-S125	Storage and Transportation	General License
	NUHOMS 37PTH	NUHOMS 37PTH-S	Storage and Transportation	General License
	NUHOMS 52B	NUHOMS 52B	Storage Only	General License
	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
	NUHOMS 61BTH	NUHOMS 61BTH Type 1	Storage and Transportation	General License
		NUHOMS 61BTH Type 2	Storage and Transportation	General License
		NUHOMS 61BTHF	Storage and Transportation	General License
	NUHOMS FC-DSC	NUHOMS FC-DSC	Storage and Transportation	Site Specific
	NUHOMS FF-DSC	NUHOMS FF-DSC	Storage and Transportation	Site Specific
	NUHOMS FO-DSC	NUHOMS FO-DSC	Storage and Transportation	Site Specific
VSC-24	MSB	MSB-Long	Storage Only	General License
		MSB-Short	Storage Only	General License
		MSB-Standard	Storage Only	General License
16 Total Cask Systems	34 Total Canister Families	54 Total Canisters	35 Storage and Transportation	43 General License
			19 Storage Only	11 Site Specific

4.4 Canistered Storage Casks Currently in Dry Storage

Similar to the "canister families" discussed in Section 2 and 4.3, in many cases the canistered storage cask systems listed in the dry storage inventory are incomplete designations for the actual storage cask used. For instance the HI-STORM 100 system has numerous storage cask variants associated with it. Not enough information is currently available publicly regarding the current dry storage inventory to define the canistered storage casks at this level of fidelity for all cases; therefore, the dry storage inventory is not defined beyond the storage system level. Because of this uncertainty, the number of unique combinations of reactor sites, canistered storage systems and specific canistered storage casks in the current dry storage inventory could be up to 527, larger than the 101 combinations of reactor sites, canistered storage systems and canister families discussed in Section 4.2.

Appendix C provides a list of the 527 combinations of reactor sites, storage systems and canisters. The following can be observed from the information contained in Appendix C:

- A total of 16 canistered storage cask systems are represented by the current inventory of canistered systems in dry storage.
- These storage cask systems represent a total of 40 unique canistered storage casks that could be in use. These storage casks are listed in Table 4.4-1 below.

Table 4.4-1 Canistered Storage Casks Currently in Dry Storage

Cask System	Storage Casks
Advanced NUHOMS	Advanced HSM
FuelSolutions	W150-Long
HI-STAR 100	HI-STAR 100 S/T Overpack
HI-STAR 100HB	HI-STAR 100HB S/T Overpack
HI-STORM 100	HI-STORM 100 Storage Overpack
	HI-STORM 100A Storage Overpack
	HI-STORM 100S(232) Storage Overpack
	HI-STORM 100S(243) Storage Overpack
	HI-STORM 100S Version B (218) Storage Overpack
	HI-STORM 100S Version B (229) Storage Overpack
	HI-STORM 100SA (229) Storage Overpack
	HI-STORM 100SA (232) Storage Overpack
HI-STORM FW	HI-STORM FW Overpack
HI-STORM TranStor	TranStor
HI-STORM UMAX	HI-STORM UMAX Vertical Ventilated Module (PWR)
NAC-MAGNASTOR	Vertical Concrete Cask CC1
	Vertical Concrete Cask CC2
	Vertical Concrete Cask CC3
	Vertical Concrete Cask CC4
NAC-MPC	CY-MPC Vertical Concrete Cask (VCC)
	Yankee-MPC Vertical Concrete Cask (VCC)
	LACBWR MPC Vertical Concrete Cask (VCC)
NAC-UMS	Class 1 Vertical Concrete Cask (VCC)
	Class 2 Vertical Concrete Cask (VCC)
	Class 3 Vertical Concrete Cask (VCC)
NUHOMS 0708	07P HSM
NUHOMS 12T	12T HSM
NUHOMS HD	HSM-H (HD)
Standardized NUHOMS	HSM Model 80 (PWR)
	HSM Model 80 (BWR)
	HSM Model 102 (PWR)
	HSM Model 102 (BWR)
	HSM Model 152
	HSM Model 202
	HSM-H
	HSM-HB
	HSM-HS
VSC-24	Vertical Concrete Cask (VCC)-Long
	Vertical Concrete Cask (VCC)-Short
	Vertical Concrete Cask (VCC)-Standard
16 Total Cask Systems	40 Total Storage Casks

4.5 Transfer Casks

Specific transfer casks are not listed in the dry storage inventory. Up to 492 combinations of transfer casks, storage systems and canister families are possible. The large number of combinations is driven primarily by the wide variety of transfer casks associated with some storage systems, particularly the Standardized NUHOMS system. Up to 12 different transfer casks are available for the Standardized NUHOMS system. Many of these transfer casks are simple adaptations of other transfer casks, e.g. the OS197FC transfer cask is identical to the OS197 transfer cask except for provisions for forced cooling of a canister during transfer operations. Up to 5 different transfer casks are available for the Holtec HI-STORM 100 system excluding the HI-TRAC 125D (Diablo) transfer cask unique to Diablo Canyon..

Appendix D provides a list of the 492 combinations of storage systems, canister families and transfer casks. The following can be observed from the information contained in Appendix D:

- A total of 14 canistered storage cask systems are represented by the current inventory of canistered systems in dry storage. Note that this quantity differs from the quantity of canistered storage systems identified in Section 4.2 and 4.4. This is because not all of the canistered storage systems utilize transfer casks, e.g. HI-STAR 100, etc.
- These storage cask systems represent a total of 33 unique transfer casks available for use with the current inventory of dry storage canisters. Some cask systems share the same transfer cask, e.g. the Advanced NUHOMS and the Standardized NUHOMS systems share the OS197 and OS197H transfer casks. The storage casks are listed in Table 4.5-1 below.

Table 4.5-1 Transfer Casks for Use with the Current Inventory of Dry Storage Canisters

Cask System	Transfer Casks	Supplemental Data Source [1]
Advanced NUHOMS	OS197	- NUH-01.0150, *Final Safety Analysis Report for the Standardized Advanced NUHOMS Horizontal Modular Storage System for Irradiated Nuclear Fuel*, Revision 0, February 2003 - Appendix A to Certificate of Compliance Number 1029, *Technical Specifications for the Advanced NUHOMS System Operating Controls and Limits*, Amendment Number 1
	OS197H	
FuelSolutions	W100	
HI-STORM (TranStor)	HI-TRAC 100	- HI-2002444, *Holtec International Final Safety Analysis Report for the HI-STORM 100 Cask System*, USNRC Docket Number 72-1014, Revision 11, August 1, 2013
	HI-TRAC 100D	
	HI-TRAC 125	
	HI-TRAC 125D	
HI-STORM 100	HI-TRAC 100	- HI-2002444, *Holtec International Final Safety Analysis Report for the HI-STORM 100 Cask System*, USNRC Docket Number 72-1014, Revision 11, August 1, 2013
	HI-TRAC 100D	
	HI-TRAC 125	
	HI-TRAC 125D	
	HI-TRAC 125D (Diablo)	- *Diablo Canyon Spent Fuel Storage Installation, Final Safety Analysis Report Update*, Docket Number 72-26, Revision 4, March 2012
HI-STORM FW	HI-TRAC VW-BWR (maximum lead)	
	HI-TRAC VW-BWR (minimum lead)	
	HI-TRAC VW-PWR (maximum lead)	
	HI-TRAC VW-PWR (minimum lead)	
HI-STORM UMAX	HI-TRAC VW-PWR (maximum lead)	
	HI-TRAC VW-PWR (minimum lead)	
NAC-MAGNASTOR	MTC-1	- *MAGNASTOR Final Safety Analysis Report*, Docket Number 72-1031, Revision 7, July 2015
	MTC-2	
NAC-MPC	CY Transfer Cask	
	DPC/Yankee Transfer Cask	
NAC-UMS	Class 1 Transfer Cask	
	Class 2 Transfer Cask	
	Class 3 Transfer Cask	

Table 4.5-1 Transfer Casks for Use with the Current Inventory of Dry Storage Canisters (continued)

Cask System	Transfer Casks	Supplemental Data Source[1]
NUHOMS 0708	IF-300	- NUH-003, *Final Safety Analysis Report for the Standardized NUHOMS Horizontal Modular Storage System for Irradiated Nuclear Fuel*, Revision 6, October 2001
NUHOMS 12T	MP187	- *INEEL TMI-2 Safety Analysis Report*, Revision 3, March 1, 2003
	OS197	
NUHOMS HD	OS187H	- *NUHOMS HD Horizontal Modular Storage System for Irradiated Nuclear Fuel, Updated Final Safety Analysis Report*, Revision 1, September 2007
	OS187H Type 1	
Standardized NUHOMS	CCNPP-FC	- *Safety Evaluation Report, Independent Spent Fuel Storage Installation, Renewed Materials License Number SNM-2505*, Amendment Number 11, Docket Number 72-8, April 26, 2016
	OS197	- NUH-003, *Final Safety Analysis Report for the Standardized NUHOMS Horizontal Modular Storage System for Irradiated Nuclear Fuel*, Revision 6, October 2001 - NUH-003, *Updated Final Safety Analysis Report for the Standardized NUHOMS Horizontal Modular Storage System for Irradiated Nuclear Fuel*, Revision 10, February 1, 2008 - Certificate Number 1004, *Certificate of Compliance for Spent Fuel Storage Casks*, Docket Number 72-1004, Amendment 11, Amendment Effective Date January 7, 2014
	OS197FC	
	OS197FC-B	
	OS197H	
	OS197HFC	
	OS197HFC-B	
	OS197L	
	OS200	
	OS200FC	
	Standardized	
	MP187	
VSC-24	MTC	
14 Total Cask Systems	33 Total Transfer Casks	

Notes:

1. Available transfer casks are derived primarily from the report, *Storage and Transport Cask Data for Used Commercial Nuclear Fuel, 2013 U. S. Edition,* ATI-TR-13047, August 9, 2013. Some of the transfer casks are not captured in the ATI-TR-13047 report and are derived from the supplemental sources listed in the table.

4.6 Canister Transportation Casks

Up to 160 combinations of reactor sites, transportation casks and canisters are possible. The large number of combinations is driven primarily by the uncertainty in the specific canister type in the current inventory of canisters in dry storage (see Section 2 and Section 4.3). Up to 8 different transportation cask designs are available to transport the current inventory of canisters in dry storage. Many canisters do not have an approved transportation cask available.

Appendix E provides a list of the 160 combinations of reactor sites, storage systems, canister families, canisters and transportation casks. The following can be observed from the information contained in Appendix E:

- A total of 8 unique transportation cask designs are available for the 34 canister families (54 different canister types) in the current inventory. The canister families and canisters with their associated transportation casks are listed in Table 4.6-1 below.
- The availability of a transportation cask is dependent on the applicable canister variant. As stated previously, the specific canister used within a canister family is not always known. Some canister families **have an approved transportation cask** regardless of which canister variant is applicable (e.g. the MPC-24 (HI-STORM) canister family) while other canister families **do not have an approved transportation cask** for any of the applicable canister variants associated with the canister family (e.g. the NUHOMS 24P canister family). Some canister families include canisters with available transportation casks and canisters that do not have available transportation casks (e.g. the MPC-32 (HI-STORM) canister family); therefore, these canister families **may have an approved transportation cask** depending on which canister variant is applicable.

  Because many specific canisters in the current inventory are known, including many within canister families that "may have an approved transportation cask", the statistics related to the availability of transportation casks are much improved when considering the availability of transportation casks for specific canisters versus canister families. Table 4.6-2 summarizes the availability of transportation casks in the current inventory relative to canister families and specific canister variants. The improvement can be seen readily when comparing the graphical presentation of the data in Figures 4.6-1 and 4.6-2. The uncertainty (i.e. "may have an approved transportation cask") is reduced to 324 canisters from 769 canisters when considering the specific known canisters in the inventory relative to the canister families.

Table 4.6-1 Transportation Casks for Use with the Current Inventory of Dry Storage Canisters

Cask System	Canister Family	Canister	Transportation Cask	Canisters Loaded [1]	Assemblies Loaded [1]
Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	MP187	17	395
	NUHOMS 24PT4	NUHOMS 24PT4	MP197HB	33	792
FuelSolutions	W74	W74T	TS125	7	441
HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	HI-STAR 100	7	476
HI-STAR 100HB	MPC-HB	MPC-HB	HI-STAR 100HB	5	390
HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STAR 100	30	720
		MPC-24E (HI-STORM)	HI-STAR 100		
		MPC-24EF (HI-STORM)	HI-STAR 100		
	MPC-32 (Diablo)	MPC-32 (Diablo)	Not Available [2]	49	1,568
	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	324	10,368
		MPC-32F	Not Available		
	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	427	29,036
		MPC-68M	Not Available	18	1,224
HI-STORM FW	MPC-37	MPC-37	Not Available [3]	19	703
	MPC-89	MPC-89	Not Available [3]	25	2,225
HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-STAR 100	29	675
HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	HI-STAR 100	5	116
HI-STORM UMAX	MPC-37	MPC-37	Not Available [3]	6	222
NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Not Available [4]	103 (Note 5)	3,780 (Note 5)
		TSC2 (PWR)	Not Available [4]		
		TSC3 (PWR)	Not Available [4]		
		TSC4 (PWR)	Not Available [4]		
NAC-MPC	CY-MPC, 26 Assy	CY-MPC, 26 Assy	NAC-STC Transport Cask	40	1,019
	Yankee-MPC	Yankee-MPC	NAC-STC Transport Cask	15	533
	LACBWR	LACBWR	NAC-STC Transport Cask	5	333
NAC-UMS	UMS-PWR	TSC-Class 1	Universal Transport Cask	256	6,138
		TSC-Class 2	Universal Transport Cask		
		TSC-Class 3	Universal Transport Cask		

Table 4.6-1 Transportation Casks for Use with the Current Inventory of Dry Storage Canisters (continued)

Cask System	Canister Family	Canister	Transportation Cask	Canisters Loaded [1]	Assemblies Loaded [1]
NUHOMS 0708	NUHOMS 07P	NUHOMS 07P	Not Available	8	56
NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	Not Available	29	177
NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	MP197HB	118	3,776
	NUHOMS 32PTH	NUHOMS 32PTH Type 1	MP197HB		
Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Not Available	135	3,240
		NUHOMS 24PS	Not Available		
	NUHOMS 24PHB	NUHOMS 24PHBL	Not Available	57	1,368
	NUHOMS 24PTH	NUHOMS 24PTH-L	MP197HB	23	552
		NUHOMS 24PTH-S	MP197HB	13	312
	NUHOMS 32P	NUHOMS 32P	Not Available	30	960
	NUHOMS 32PHB	NUHOMS 32PHB	Not Available	3	96
	NUHOMS 32PT	NUHOMS 32PT-L100	MP197HB	104 (Note 6)	3,328 (Note 6)
		NUHOMS 32PT-L125	MP197HB		
		NUHOMS 32PT-S100	MP197HB		
		NUHOMS 32PT-S125	MP197HB		
	NUHOMS 37PTH	NUHOMS 37PTH-S	MP197HB	4	148
	NUHOMS 52B	NUHOMS 52B	Not Available	27	1,404
	NUHOMS 61BT	NUHOMS 61BT	MP197	129	7,869
			MP197HB		
	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	110 (Note 7)	6,710 (Note 7)
		NUHOMS 61BTH Type 2	MP197HB		
		NUHOMS 61BTHF	MP197HB		

Table 4.6-1 Transportation Casks for Use with the Current Inventory of Dry Storage Canisters (continued)

Cask System	Canister Family	Canister	Transportation Cask	Canisters Loaded [1]	Assemblies Loaded [1]
Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	MP187	18	432
	NUHOMS FF-DSC	NUHOMS FF-DSC	MP187	1	13
	NUHOMS FO-DSC	NUHOMS FO-DSC	MP187	2	48
VSC-24	MSB	MSB-Long	Not Available	24	576
		MSB-Short	Not Available	16	384
		MSB-Standard	Not Available	18	432
16 Total Cask Systems	34 Total Canister Families	54 Total Canisters	8 Total Transportation Casks Available for the Canisters in the Current Dry Storage Inventory	2,289 Total Canisters in the Current Dry Storage Inventory	93,035 Total Assemblies in the Current Dry Storage Inventory
	20 Canister Families representing 971 canisters and 35,216 assemblies HAVE An Approved Transportation Cask			1,398 Canisters in the Current Dry Storage Inventory HAVE Available Transportation Casks	64,252 Assemblies in the Current Dry Storage Inventory HAVE Transportation Casks
	2 Canister Families representing 769 canisters and 40,628 assemblies MAY NOT HAVE An Approved Transportation Cask			324 Canisters in the Current Dry Storage Inventory MAY NOT HAVE Available Transportation Casks	10,368 Assemblies in the Current Dry Storage Inventory MAY NOT HAVE Available Transportation Casks
	12 Canister Families representing 549 canisters and 17,191 assemblies DO NOT HAVE an Approved Transportation Cask			567 Canisters in the Current Dry Storage Inventory DO NOT HAVE Available Transportation Casks	18,415 Assemblies in the Current Dry Storage Inventory DO NOT HAVE Available Transportation Casks

Notes:

1. The inventory is current to the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263. See Section 2 for further explanation.
2. Holtec has submitted a License Application Request for Amendment 10 to the HI-STAR 100 transportation Certificate of Compliance 71-9261. Amendment 10 proposes to add the MPC-32 (Diablo) canister. The request is currently being reviewed by the NRC.
3. The HI-STAR 190 transportation cask is intended for use with the HI-STORM FW and UMAX systems but is not currently licensed. The safety analysis report is currently being reviewed by the NRC (Docket Number 71-9373).
4. The MAGNATRAN transportation cask is intended for use with the NAC-MAGNASTOR system but is not currently licensed. The safety analysis report is currently being reviewed by the NRC (Docket Number 71-9356).
5. The quantity stated is for all canisters in the TSC PWR Canister Family. Some specific Canisters in use are known. Sixteen TSC2 (PWR) canisters are used at Kewaunee. Sixty-one TSC4 (PWR) canisters are used at Zion. The specific canister types used for the remaining 26 canisters (10 at Catawba and 16 at McGuire) are unknown. See Appendix E.
6. The quantity stated is for all canisters in the NUHOMS 32PT Canister Family. Some specific Canisters in use are known. The known canister types in use are as follows:
    - NUHOMS 32PT-L125 - Thirteen canisters are in use at Millstone 2 & 3.
    - NUHOMS 32PT-S100 - Fourteen canisters are in use at Kewaunee. Eighteen canisters are in use at Millstone 2 & 3. Ten canisters are in use at Fort Calhoun.
    - NUHOMS 32PT-S125 - Eleven canisters are in use at Palisades. Ten canisters are in use at Ginna.

    The specific canister types used for the remaining 28 canisters at Point Beach are unknown. See Appendix E.
7. The quantity stated is for all canisters in the NUHOMS 61BTH Canister Family. Some specific Canisters in use are known. Twenty-eight canisters are used at Brunswick. The specific canister types used for the remaining 82 canisters (17 at Limerick, 8 at Nine Mile Point, 19 at Oyster Creek, 10 at Cooper, 22 at Susquehanna and 6 at Monticello) are unknown. See Appendix E.

Table 4.6-2 Transportation Cask Availability for the Current Inventory of Dry Storage Canisters

Category	Canister Families				Known Canisters			
	Canisters	%	Assemblies	%	Canisters	%	Assemblies	%
Have	971	42.4	35,216	37.9	1,398	61.1	64,252	69.1
Do Not Have	549	24.0	17,191	18.5	567	24.8	18,415	19.8
May Have	769	33.6	40,268	43.7	324	14.2	10,368	11.1
TOTAL	2,289	100	93,035	100	2,289	100	93,035	100

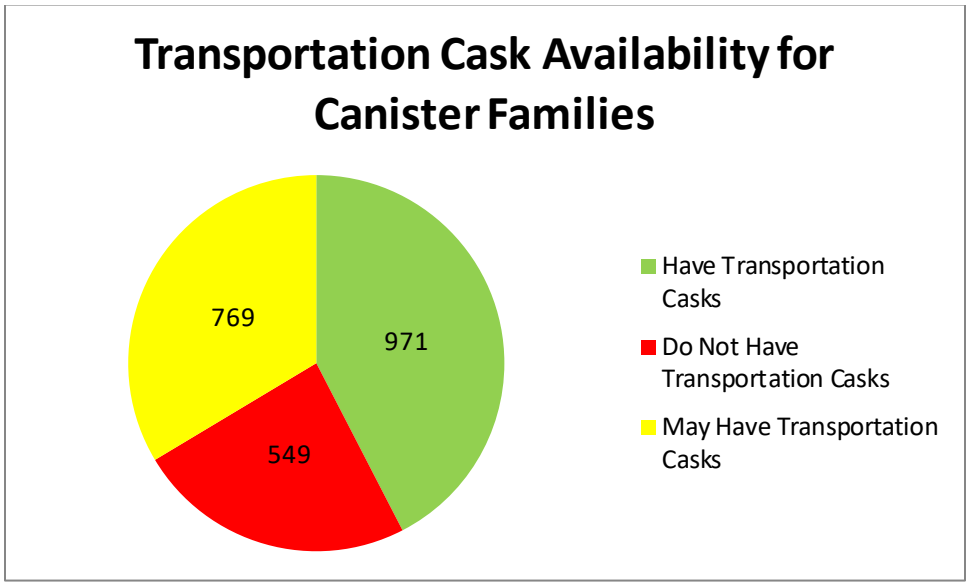

Figure 4.6-1 Transportation Cask Availability for Canister Families

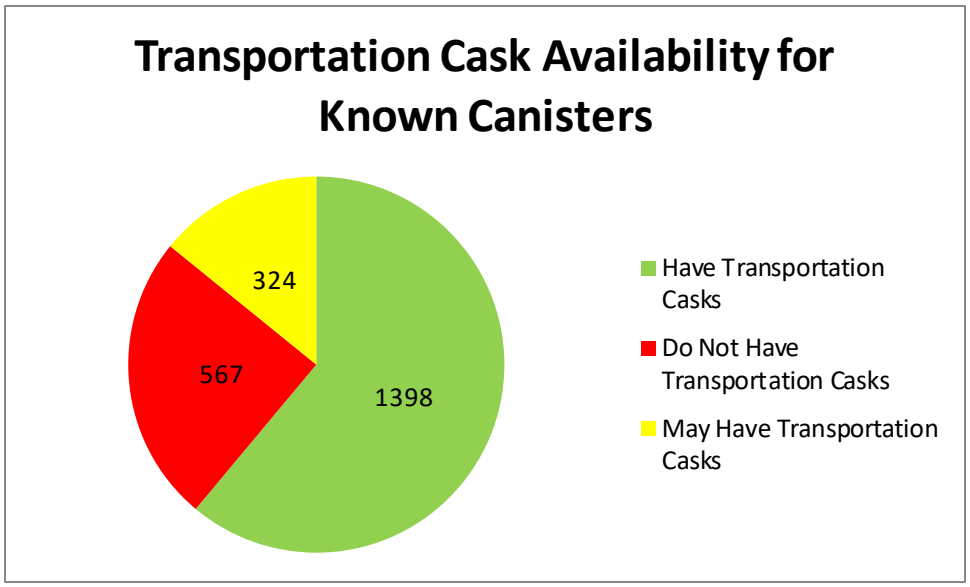

Figure 4.6-2 Transportation Cask Availability for Known Canisters

4.6.1 Transportation Casks for Shutdown Reactor Sites

An initial interim storage facility (ISF) with a focus on SNF from shutdown reactor sites is planned. The inventory of SNF to be stored at the initial ISF has not yet been defined. A special inventory (i.e. different from that defined in Section 2) was considered to assess the availability of transportation casks for transporting SNF from the shutdown reactor sites to the initial ISF. The projected inventory from the following shutdown reactor sites shown in Table 4.6-3 was considered.

Table 4.6-3 Shutdown Reactor Sites

Utility	Reactor [1]	Site Characteristic [2]
Connecticut Yankee	Connecticut Yankee	A1
Dairyland Power	Lacrosse	A1
Entergy	Big Rock Point	A1
Maine Yankee	Maine Yankee	A1
PG&E	Humboldt Bay	A1
Portland	GE Trojan	A1
SMUD	Rancho Seco	A1
YAEC	Yankee Rowe	A1
Zion Solutions	Zion	A1
Dominion	Kewaunee	A2
Entergy	Vermont Yankee	A2
OPPD	Fort Calhoun	A2
Southern Cal Edison	SONGS 1, 2 & 3	A2
Duke	Crystal River	A3
Entergy	Indian Point 1	B1
Exelon	Dresden 1	B2
Dominion	Millstone 1	B3
Entergy	**Indian Point 2 & 3**	AS – W&D
Entergy	Pilgrim	AS – W&D
Exelon	Oyster Creek	AS – W&D
PG&E	Diablo Canyon 1 & 2	AS – W&D

Notes:

1. Reactors in **BOLD** font are new for Revision 3 of this report.
2. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - A3 - All Reactors Shut Down - Wet Storage Only
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - B3 - At Least One Operating and One Shutdown Reactor - Wet Storage Only

   "Announced Shutdown – Wet and Dry Storage" (AS – W&D) is used in the table above to designate intent to shut down prior to initial ISF operations.

There are 16 shutdown reactors at 14 sites with no operating reactors (i.e. Site Characteristic = A1, A2 or A3). There are 3 shutdown reactors at 3 sites with at least one operating reactor remaining (i.e. Site Characteristic = B1, B2 or B3). Six reactors at four sites have announced their intention to shut down in the near future

The projected inventory defined in Tables 2-11, 2-12, 2-13 and 2-14 of FCRD-NFST-2013-000263 provides the basis for the spent fuel inventory anticipated from the shutdown reactors listed in Table 4.6-3. This inventory is included in Appendix F, Table F-1. The following is a list of differences between the projected inventory included in Appendix F and the current inventory defined in Section 2 and included in Appendix A:

Table 4.6-4 Comparison of the Projected Inventory to the Current Inventory for Shutdown Reactors

Utility	Reactor [1]	Site Characteristic [2]	Current Inventory	Projected Inventory	Comment
Connecticut Yankee	Connecticut Yankee	A1	1,019 assemblies in 40 CY-MPC,26 Assy canisters	No change from Current Inventory	
Dairyland Power	La Crosse	A1	333 assemblies in 5 NAC LACBWR canisters	No change from Current Inventory	
Entergy	Big Rock Point	A1	441 assemblies in 7 FuelSolutions W74T canisters	No change from Current Inventory	
Maine Yankee	Maine Yankee	A1	1,434 assemblies in 60 NAC UMS-PWR canisters	No change from Current Inventory	
PG&E	Humboldt Bay	A1	390 assemblies in 5 Holtec MPC-HB canisters	No change from Current Inventory	
Portland	GE Trojan	A1	- 675 assemblies in 29 Holtec MPC-24E (TranStor) canisters - 116 assemblies in 5 Holtec MPC-24EF (TranStor) canisters	No change from Current Inventory	

Table 4.6-4 Comparison of the Projected Inventory to the Current Inventory for Shutdown Reactors (continued)

Utility	Reactor [1]	Site Characteristic [2]	Current Inventory	Projected Inventory	Comment
SMUD	Rancho Seco	A1	- 432 assemblies in 18 NUHOMS FC-DSC canisters - 13 assemblies in 1 NUHOMS FF-DSC canisters - 48 assemblies in 2 NUHOMS FO-DSC canisters	No change from Current Inventory	
YAEC	Yankee Rowe	A1	533 assemblies in 15 NAC Yankee-MPC canisters	No change from Current Inventory	
Zion Solutions	Zion 1	A1	1,143 assemblies in 31 NAC MAGNASTOR TSC4 (PWR) canisters	No change from Current Inventory	
Zion Solutions	Zion 2	A1	1,083 assemblies in 30 NAC TSC4 (PWR) canisters	No change from Current Inventory	
Dominion	Kewaunee	A2	- 448 assemblies in 14 NUHOMS 32PT-S100 canisters - 592 assemblies in 16 NAC MAGNASTOR TSC2 (PWR) canisters	- 448 assemblies in 14 NUHOMS 32PT-S100 canisters - 887 assemblies in 24 NAC-MAGNASTOR TSC-PWR canisters	Kewaunee has announced intentions of using the NAC-MAGNASTOR system for dry storing its remaining inventory of spent fuel.
Entergy	Vermont Yankee	A2	884 assemblies in 13 Holtec MPC-68 (HI-STORM) canisters	3,877 assemblies in 58 MPC-68 (HI-STORM) canisters	

Table 4.6-4 Comparison of the Projected Inventory to the Current Inventory for Shutdown Reactors (continued)

Utility	Reactor [1]	Site Characteristic [2]	Current Inventory	Projected Inventory	Comment
OPPD	Fort Calhoun	A2	320 assemblies in 10 NUHOMS 32PT-S100 canisters	1,280 assemblies in 40 NUHOMS 32PT-S100 canisters	
Southern Cal Edison	SONGS 1	A2	395 assemblies in 17 NUHOMS 24PT1 canisters	No change from Current Inventory	
	SONGS 2	A2	792 assemblies in 33 NUHOMS 24PT4 canisters	No change from Current Inventory	
	SONGS 2 & 3	A2		2,668 assemblies in 73 Holtec MPC-37 canisters	The Holtec UMAX dry storage system has been selected to store the remaining fuel from SONGS 2 and 3.
Duke	Crystal River	A3		1,243 assemblies in 39 NUHOMS 32PTH1 canisters	Crystal River has not yet loaded spent fuel in dry storage. Canister selection is based on information contained in FCRD-NFST-2013-000263, Table 2-28. The specific canister variant (32PTH1-L, 32PTH1-M or 32PTH1-S) is unknown.
Entergy	Indian Point 1	B1	160 assemblies in 5 Holtec MPC-32 (HI-STORM) canisters	No change from Current Inventory	
Exelon	Dresden 1	B2	272 assemblies in 4 Holtec MPC-68 (HI-STAR) canisters	- 272 assemblies in 4 MPC-68 (HI-STAR) canisters - 617 assemblies in 10 MPC-68 (HI-STORM) canisters	Apparently, some Unit 1 fuel is comingled in dry storage with fuel from Unit 2 and with Unit 3 fuel in the Unit 3 storage pool. See the discussion in Section 2.2. The Current Inventory listed here is incomplete.

Table 4.6-4 Comparison of the Projected Inventory to the Current Inventory for Shutdown Reactors (continued)

Utility	Reactor [1]	Site Characteristic [2]	Current Inventory	Projected Inventory	Comment
Dominion	Millstone 1	B3		2,884 assemblies in 48 NUHOMS 61BT canisters	The current inventory of fuel in dry storage at Millstone only includes spent fuel from Millstone 2 & 3 which are PWR reactors and are still operating. The NUHOMS storage system with 32PT-L125 and 32PT-S100 canisters is currently used for dry storage of Millstone 2 & 3 fuel assemblies. No spent fuel from Millstone 1 which is a BWR reactor has been loaded into dry storage canisters. Dominion has not announced what canister(s) it will use for Millstone 1.
Entergy	**Indian Point 2 & 3**	AS-W&D	992 assemblies in 31 Holtec MPC-32 (HI-STORM) canisters	3,849 assemblies in 121 Holtec MPC-32 (HI-STORM) canisters	
Entergy	Pilgrim	AS-W&D	544 assemblies in 8 Holtec MPC-68 (HI-STORM) canisters	4,113 assemblies in 61 Holtec MPC-68 (HI-STORM) canisters	
Exelon	Oyster Creek	AS-W&D	- 488 assemblies in 8 NUHOMS 61BT canisters - 1,159 assemblies in 19 NUHOMS 61BTH canisters	- 3,552 assemblies in 59 NUHOMS 61BT canisters - 1,159 assemblies in 19 NUHOMS 61BTH canisters	NUHOMS 61BT canisters are assumed for future loadings.

Table 4.6-4 Comparison of the Projected Inventory to the Current Inventory for Shutdown Reactors (continued)

Utility	Reactor [1]		Current Inventory	Projected Inventory	Comment
PG&E	Diablo Canyon 1	AS-W&D	1,568 assemblies in 49 Holtec MPC-32 (Diablo) canisters	2,357 assemblies in 74 Holtec MPC-32 (Diablo) canisters	
PG&E	Diablo Canyon 2	AS-W&D		2,094 assemblies in 66 Holtec MPC-32 (Diablo) canisters	

Notes:
1. Reactors in **BOLD** font are new for Revision 3 of this report.
2. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - A3 - All Reactors Shut Down - Wet Storage Only
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - B3 - At Least One Operating and One Shutdown Reactor - Wet Storage Only

   "Announced Shutdown – Wet and Dry Storage" (AS-W&D) is used in the table above to designate intent to shut down prior to initial ISF operations.

Up to 40 combinations of reactor sites, transportation casks and canisters are possible for the projected inventory of SNF at shutdown reactor sites. The large number of combinations is driven primarily by the uncertainty in the specific canister type associated with the projected inventory for some of the canisters in dry storage. Up to 8 different transportation casks are available to transport the projected inventory of canisters in dry storage to the initial ISF. Several canister types do not have an approved transportation cask available.

Appendix F, Table F-2 provides a list of the 40 combinations of reactor sites, storage systems, canister families, canisters and transportation casks. The following can be observed from the information contained in Table F-2:

- A total of 8 unique transportation casks are available for the 22 canister families (31 different canister types) in the projected inventory. The canister families and canisters with their associated transportation casks are listed in Table 4.6-4 below.
- The availability of a transportation cask is dependent on the applicable canister. Some canister families have an approved transportation cask regardless of which canister is applicable, e.g. the NUHOMS 32PT canister family. A total of 18 canister families **have** an approved transportation cask regardless of the applicable canister. These canister families represent 589 canisters (58.1% of the total 1,013 canisters) and 26,066 assemblies (64.7% of the total 40,307 assemblies) in the projected inventory.
- Three canister families **do not have** an approved transportation cask for any of the applicable canisters associated with the canister family, i.e. the MPC-32 (Diablo), the MPC-37 and the TSC-PWR canister families. These canister families represent 298 canisters (29.4% of the total 1,013 canisters) and 10,232 assemblies (25.4% of the total 40,307 assemblies) in the projected dry storage inventory.
- One canister family **may not have** an approved transportation cask depending on which canister is applicable, e.g. the MPC-32 (HI-STORM) canister family. This canister family represents 126 canisters (12.4% of the total 1,013 canisters) and 4,009 assemblies (9.9% of the total 40,307 assemblies) in the projected dry storage inventory.

Table 4.6-5 Canistered System Transportation Casks for Shutdown Reactor Sites

Cask System	Canister Family	Canister	Transportation Cask	Total Canisters Generated For Projected Inventory [1]	Reactor
FuelSolutions	W74	W74T	TS125	7	Big Rock Point
HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	Not Available [2]	74	Diablo Canyon 1
		MPC-32 (Diablo)		66	Diablo Canyon 2
	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	5	Indian Point 1
		MPC-32F	Not Available	121	Indian Point 2&3
	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	58 61 10	Vermont Yankee Pilgrim Dresden 1
HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-STAR 100	29	GE Trojan
		MPC-24EF (TranStor)	HI-STAR 100	5	
HI-STORM UMAX	MPC-37	MPC-37	Not Available [3]	73	SONGS 2 & 3
HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	HI-STAR 100	4	Dresden 1
HI-STAR 100HB	MPC-HB	MPC-HB	HI-STAR 100HB	5	Humboldt Bay

Table 4.6-5 Canistered System Transportation Casks for Shutdown Reactor Sites (continued)

Cask System	Canister Family	Canister	Transportation Cask	Total Canisters Generated For Projected Inventory [1]	Reactor
Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	MP197HB	14 40	Kewaunee Fort Calhoun
	NUHOMS 32PTH1	NUHOMS 32PTH1-L	MP197HB	39	Crystal River
		NUHOMS 32PTH1-M	MP197HB		
		NUHOMS 32PTH1-S	MP197HB		
	NUHOMS 61BT	NUHOMS 61BT	MP197 MP197HB	48 59	Millstone 1 Oyster Creek
	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	19	Oyster Creek
		NUHOMS 61BTH Type 2	MP197HB		
		NUHOMS 61BTHF	MP197HB		
	NUHOMS FC-DSC	NUHOMS FC-DSC	MP187	18	Rancho Seco
	NUHOMS FF-DSC	NUHOMS FF-DSC	MP187	1	Rancho Seco
	NUHOMS FO-DSC	NUHOMS FO-DSC	MP187	2	Rancho Seco
Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	MP187	17	SONGS 1
	NUHOMS 24PT4	NUHOMS 24PT4	MP197HB	33	SONGS 2
NAC-MPC	CY-MPC	CY-MPC, 26 Assy	NAC-STC Transport Cask	40	Connecticut Yankee
	LACBWR	LACBWR	NAC-STC Transport Cask	5	Lacrosse
	Yankee-MPC	Yankee-MPC	NAC-STC Transport Cask	15	Yankee Rowe

Table 4.6-5 Canistered System Transportation Casks for Shutdown Reactor Sites (continued)

Cask System	Canister Family	Canister	Transportation Cask	Total Canisters Generated For Projected Inventory [1]	Reactor
NAC-UMS	UMS-PWR	TSC-Class 1	Universal Transport Cask	60	Maine Yankee
		TSC-Class 2	Universal Transport Cask		
		TSC-Class 3	Universal Transport Cask		
NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Not Available [4]	24	Kewaunee
		TSC4 (PWR)	Not Available [4]	61	Zion
11 Total Cask Systems	22 Total Canister Families	31 Total Canisters	8 Total Transportation Casks Available for the Canisters in the Current Dry Storage Inventory	1,013 Total Canisters in the Projected Inventory	40,307 Total Assemblies in the Projected Inventory
	18 Canister Families HAVE An Approved Transportation Cask			589 Canisters in the Projected Inventory HAVE Available Transportation Casks	26,066 Assemblies in the Projected Inventory HAVE Transportation Casks
	1 Canister Family MAY NOT HAVE An Approved Transportation Cask			126 Canisters in the Projected Inventory MAY NOT HAVE Available Transportation Casks	4,009 Assemblies in the Projected Inventory MAY NOT HAVE Available Transportation Casks
	3 Canister Families DO NOT HAVE an Approved Transportation Cask			298 Canisters in the Projected Inventory DO NOT HAVE Available Transportation Casks	10,232 Assemblies in the Projected Inventory DO NOT HAVE Available Transportation Casks

Notes:

1. The projected inventory is based on the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263. See Section 2 and Section 4.6.1 for further explanation.
2. Holtec has submitted a License Application Request for Amendment 10 to the HI-STAR 100 transportation Certificate of Compliance 71-9261. Amendment 10 proposes to add the MPC-32 (Diablo) canister. The request is currently being reviewed by the NRC.
3. The HI-STAR 190 transport cask is intended for use with the HI-STORM FW and UMAX system but is not currently licensed. The safety analysis report is currently under review by the NRC (Docket Number 71-9373).
4. The MAGNATRAN transport cask is intended for use with the NAC-MAGNASTOR system but is not currently licensed. The safety analysis report is currently under review by the NRC (Docket Number 71-9356).

5. RECOMMENDATIONS

During the course of developing this report, several limitations with the existing knowledge base of information pertaining to the current inventory of spent fuel in dry storage were discovered. Most of these limitations have been discussed or alluded to already in this report. The following recommendations are made to address these limitations:

1. The primary source of cask system data for this report is the document, *Storage and Transport Cask Data for Used Commercial Nuclear Fuel, 2013 U. S. Edition*, [ATI-TR-13047 2013]. Several errors, omissions and ambiguities were discovered in this document during preparation of this *Dry Storage Cask Inventory Assessment* report. It is recommended that the items listed in Section 3.1 be considered in any future revisions of ATI-TR-13047.
2. The database (the Dry Storage Cask/Inventory Database) that was developed to support this report was developed with the assumption that it would eventually be incorporated into the NFST Unified Database developed by ORNL. Data tables associated with Revision 1 of this report were imported into the Unified Database early in FY 2016. In conjunction with Revision 3 of this report, updated data on bare fuel casks, canisters, canistered storage casks and canistered transportation casks were transmitted to ORNL for inclusion in the Unified Database [Jones 2017]. The efforts to maintain the storage system data current in the Unified Database should be continued.
3. Inventory data to support this report is derived primarily from the document, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report* (FCRD-NFST-2013-000263). Data was also obtained from the document, *Preliminary Evaluation of Removing Used Fuel from Shutdown Sites* [FCRD-NFST-2014-000372, Maheras 2014] as appropriate. Modifications were made to this information as described in Section 2 for this report. These modifications should be considered in future revisions to FCRD-NFST-2013-000263 and FCRD-NFST-2014-000372.
4. The inventory of commercial light water reactor spent fuel in dry storage should continue to be refined to provide better and more complete information relative to the specific components used to store and potentially transport the spent fuel in the future. Particular attention should be devoted to the identification of the specific canisters used to enable a more accurate assessment of the availability of transportation casks for the current inventory of spent fuel. The collection and review of cask registration letters that was begun in 2017 was very helpful in resolving the uncertainty associated with many canister families. Since utilities continue to load spent fuel into dry storage canisters, registration letters should continue to be monitored to determine specific canister types being loaded.

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Appendix A
Current Inventory of SNF in Dry Storage

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Table A-1 Current Inventory of SNF in Dry Storage

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
AEP	D.C.Cook	PWR	C2	General License	2012	HI-STORM 100	MPC-32 (HI-STORM)			28	896	393.0
Ameren	Callaway	PWR	C2	General License	2015	HI-STORM UMAX	MPC-37	MPC-37		6	222	94.0
APS	Palo Verde	PWR	C2	General License	2003	NAC-UMS	UMS-PWR			144	3456	1,485.0
Connecticut Yankee	Connecticut Yankee	PWR	A1	General License	2004	NAC-MPC	CY-MPC	CY-MPC, 26 Assy		40	1019	413.5
Dairyland Power	La Crosse	BWR	A1	General License	2012	NAC-MPC	LACBWR	LACBWR		5	333	38.0
Detroit Edison	Fermi 2	BWR	C2	General License	2014	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		12	816	143.0
DOE	INL	PWR	ISFSI Only	Site Specific	1991	NUHOMS 12T	NUHOMS 12T	NUHOMS 12T		29	177	83.0
Dominion	Kewaunee	PWR	A2	General License	2017	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)		16	592	230.0
Dominion	Kewaunee	PWR	A2	General License	2009	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100		14	448	174.0
Dominion	Millstone 2 & 3	PWR	B2	General License	2015	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125		13	416	176.6
Dominion	Millstone 2 & 3	PWR	B2	General License	2005	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100		18	576	244.5
Dominion	North Anna	PWR	C2	General License	2008	NUHOMS HD	NUHOMS 32PTH			31	992	459.7
Dominion	North Anna	PWR	C2	Site Specific	1998	TN-32			TN-32	27	864	400.3

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
Dominion	Surry	PWR	C2	Site Specific	1986	CASTOR V/21			CASTOR V/21	25	525	240.8
Dominion	Surry	PWR	C2	Site Specific	1986	CASTOR X/33			CASTOR X/33	1	33	15.1
Dominion	Surry	PWR	C2	Site Specific	1986	MC-10			MC-10 (PWR)	1	24	11.0
Dominion	Surry	PWR	C2	Site Specific	1986	NAC I28 S/T			NAC I28 S/T	2	56	25.7
Dominion	Surry	PWR	C2	General License	2007	NUHOMS HD	NUHOMS 32PTH			29	928	425.7
Dominion	Surry	PWR	C2	Site Specific	1986	TN-32			TN-32	26	832	381.7
Duke	Brunswick	BWR	C2	General License	2010	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2		28	1708	340.0
Duke	Catawba	PWR	C2	General License	2013	NAC-MAGNASTOR	TSC PWR			10	370	165.4
Duke	Catawba	PWR	C2	General License	2007	NAC-UMS	UMS-PWR			24	576	257.6
Duke	McGuire	PWR	C2	General License	2001	NAC-MAGNASTOR	TSC PWR			16	592	266.1
Duke	McGuire	PWR	C2	General License	2001	NAC-UMS	UMS-PWR			28	672	302.1
Duke	McGuire	PWR	C2	General License	2001	TN-32			TN-32A	10	320	143.8

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
Duke	Oconee	PWR	C2	Site Specific	1990	Standardized NUHOMS	NUHOMS 24P			40	960	447.4
Duke	Oconee	PWR	C2	General License	1990	Standardized NUHOMS	NUHOMS 24P			44	1056	492.1
Duke	Oconee	PWR	C2	General License	2000	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL		57	1368	637.5
Duke	Robinson	PWR	C2	Site Specific	1989	NUHOMS 0708	NUHOMS 07P	NUHOMS 07P		8	56	24.2
Duke	Robinson	PWR	C2	General License	2007	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L		23	552	238.8
Energy Northwest	Columbia	BWR	C2	General License	2002	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		36	2448	431.0
Entergy	ANO	PWR	C2	General License	1996	HI-STORM 100	MPC-24 (HI-STORM)			30	720	317.4
Entergy	ANO	PWR	C2	General License	1996	HI-STORM 100	MPC-32 (HI-STORM)			25	800	352.7
Entergy	ANO	PWR	C2	General License	1996	VSC-24	MSB	MSB-Long		24	576	253.9
Entergy	Big Rock Point	BWR	A1	General License	2002	FuelSolutions	W74	W74T		7	441	57.9
Entergy	Grand Gulf	BWR	C2	General License	2006	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		28	1904	336.0
Entergy	Indian Point 1	PWR	B1	General License	2008	HI-STORM 100	MPC-32 (HI-STORM)			5	160	30.6
Entergy	Indian Point 2 & 3	PWR	B2	General License	2008	HI-STORM 100	MPC-32 (HI-STORM)			31	992	451.0

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
Entergy	Palisades	PWR	C2	General License	2016	HI-STORM FW	MPC-37	MPC-37		4	148	60.8
Entergy	Palisades	PWR	C2	General License	1993	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S		13	312	128.2
Entergy	Palisades	PWR	C2	General License	1993	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125		11	352	144.6
Entergy	Palisades	PWR	C2	General License	1993	VSC-24	MSB	MSB-Standard		18	432	177.5
Entergy	Pilgrim	BWR	C2	General License	2015	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		8	544	97.0
Entergy	River Bend	BWR	C2	General License	2005	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		23	1564	277.0
Entergy	Vermont Yankee	BWR	A2	General License	2008	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		13	884	160.0
Entergy	Waterford	PWR	C2	General License	2011	HI-STORM 100	MPC-32 (HI-STORM)			23	736	310.0
Exelon	Braidwood	PWR	C2	General License	2011	HI-STORM 100	MPC-32 (HI-STORM)			18	576	242.0
Exelon	Byron	PWR	C2	General License	2010	HI-STORM 100	MPC-32 (HI-STORM)			26	832	350.0
Exelon	Calvert Cliffs	PWR	C2	Site Specific	1992	Standardized NUHOMS	NUHOMS 24P			48	1152	451.3
Exelon	Calvert Cliffs	PWR	C2	Site Specific	1992	Standardized NUHOMS	NUHOMS 32P	NUHOMS 32P		30	960	376.1
Exelon	Calvert Cliffs	PWR	C2	Site Specific	2016	Standardized NUHOMS	NUHOMS 32PHB	NUHOMS 32PHB		3	96	37.6

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
Exelon	Clinton	BWR	C2	General License	2016	HI-STORM FW	MPC-89	MPC-89		6	534	96.0
Exelon	Dresden 1	BWR	B2	General License	2000	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)		4	272	27.7
Exelon	Dresden 2 & 3	BWR	B2	General License	2000	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		60	4080	718.2
Exelon	Dresden 2 & 3	BWR	B2	General License	2015	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M		8	544	95.8
Exelon	Fitzpatrick	BWR	C2	General License	2002	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		21	1428	258.0
Exelon	Ginna	PWR	C2	General License	2010	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125		10	320	118.0
Exelon	LaSalle	BWR	C2	General License	2010	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		24	1632	292.0
Exelon	Limerick	BWR	C2	General License	2008	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT		19	1159	206.4
Exelon	Limerick	BWR	C2	General License	2013	Standardized NUHOMS	NUHOMS 61BTH			17	1037	184.6
Exelon	Nine Mile Point	BWR	C2	General License	2012	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT		16	976	172.7
Exelon	Nine Mile Point	BWR	C2	General License	2014	Standardized NUHOMS	NUHOMS 61BTH			8	488	86.3
Exelon	Oyster Creek	BWR	C2	General License	2002	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT		8	488	86.5
Exelon	Oyster Creek	BWR	C2	General License	2013	Standardized NUHOMS	NUHOMS 61BTH			19	1159	205.5

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
Exelon	Peach Bottom 2 & 3	BWR	C2	General License	2000	TN-68			TN-68	80	5440	977.0
Exelon	Quad Cities	BWR	C2	General License	2005	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		48	3264	580.0
FirstEnergy	Beaver Valley	PWR	C2	General License	2015	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S		4	148	68.0
FirstEnergy	Davis-Besse	PWR	C2	General License	1995	Standardized NUHOMS	NUHOMS 24P			3	72	34.0
FirstEnergy	Perry	BWR	C2	General License	2012	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		20	1360	245.0
Luminant	Comanche Peak	PWR	C2	General License	2012	HI-STORM 100	MPC-32 (HI-STORM)			29	928	390.0
Maine Yankee	Maine Yankee	PWR	A1	General License	2002	NAC-UMS	UMS-PWR			60	1434	542.3
NextEra Energy	Duane Arnold	BWR	C2	General License	2003	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT		20	1220	221.0
NextEra Energy	Point Beach	PWR	C2	General License	1995	Standardized NUHOMS	NUHOMS 32PT			28	896	343.7
NextEra Energy	Point Beach	PWR	C2	General License	1995	VSC-24	MSB	MSB-Short		16	384	147.3
NextEra Energy	Seabrook	PWR	C2	General License	2008	NUHOMS HD	NUHOMS 32PTH			14	448	205.0
NextEra Energy	St. Lucie	PWR	C2	General License	2008	NUHOMS HD	NUHOMS 32PTH			26	832	324.0
NextEra Energy	Turkey Point	PWR	C2	General License	2011	NUHOMS HD	NUHOMS 32PTH			18	576	263.0

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
NPPD	Cooper	BWR	C2	General License	2010	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT		8	488	88.0
NPPD	Cooper	BWR	C2	General License	2014	Standardized NUHOMS	NUHOMS 61BTH			10	610	110.0
OPPD	Fort Calhoun	PWR	C2	General License	2006	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100		10	320	118.0
PG&E	Diablo Canyon	PWR	C2	Site Specific	2009	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)		49	1568	675.0
PG&E	Humboldt Bay	BWR	A1	Site Specific	2008	HI-STAR 100HB	MPC-HB	MPC-HB		5	390	28.9
Portland	GE Trojan	PWR	A1	Site Specific	2002	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)		29	675	306.6
Portland	GE Trojan	PWR	A1	Site Specific	2002	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)		5	116	52.7
PPL	Susquehanna	BWR	C2	General License	1999	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B		27	1404	247.9
PPL	Susquehanna	BWR	C2	General License	1999	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT		48	2928	517.1
PPL	Susquehanna	BWR	C2	General License	2013	Standardized NUHOMS	NUHOMS 61BTH			22	1342	237.0
PSE&G	Hope Creek	BWR	C2	General License	2006	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		29	1972	354.0
PSE&G	Salem	PWR	C2	General License	2010	HI-STORM 100	MPC-32 (HI-STORM)			27	864	397.0
SCE&G	V. C. Summer	PWR	C2	General License	2016	HI-STORM FW	MPC-37	MPC-37		4	148	63.0

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
SMUD	Rancho Seco	PWR	A1	Site Specific	2001	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC		18	432	200.1
SMUD	Rancho Seco	PWR	A1	Site Specific	2001	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC		1	13	6.0
SMUD	Rancho Seco	PWR	A1	Site Specific	2001	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC		2	48	22.2
Southern Cal Edison	SONGS 1	PWR	A2	General License	2003	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1		17	395	160.1
Southern Cal Edison	SONGS 2	PWR	A2	General License	2003	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4		33	792	320.9
Southern Nuclear	Farley	PWR	C2	General License	2005	HI-STORM 100	MPC-32 (HI-STORM)			42	1344	590.0
Southern Nuclear	Hatch	BWR	C2	General License	2000	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)		3	204	36.7
Southern Nuclear	Hatch	BWR	C2	General License	2000	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		60	4080	734.0
Southern Nuclear	Hatch	BWR	C2	General License	2015	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M		10	680	122.3
Southern Nuclear	Vogtle	PWR	C2	General License	2013	HI-STORM 100	MPC-32 (HI-STORM)			26	832	359.0
TVA	Browns Ferry	BWR	C2	General License	2005	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)		45	3060	552.6
TVA	Browns Ferry	BWR	C2	General License	2015	HI-STORM FW	MPC-89	MPC-89		19	1691	305.4
TVA	Sequoyah	PWR	C2	General License	2004	HI-STORM 100	MPC-32 (HI-STORM)			44	1408	644.3
TVA	Sequoyah	PWR	C2	General License	2016	HI-STORM FW	MPC-37	MPC-37		5	185	84.7

Table A-1 Current Inventory of SNF in Dry Storage (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister [2]	Bare Fuel Cask	Total Canisters Or Casks Loaded [3]	Assemblies Stored [3]	MTiHM [3]
TVA	Watts Bar	PWR	C2	General License	2016	HI-STORM FW	MPC-37	MPC-37		6	222	102.0
Xcel Energy	Monticello	BWR	C2	General License	2008	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT		10	610	105.6
Xcel Energy	Monticello	BWR	C2	General License	2013	Standardized NUHOMS	NUHOMS 61BTH			6	366	63.4
Xcel Energy	Prairie Island	PWR	C2	Site Specific	2013	TN-40			TN-40HT	11	440	160.3
Xcel Energy	Prairie Island	PWR	C2	Site Specific	1993	TN-40			TN-40	29	1160	422.7
YAEC	Yankee Rowe	PWR	A1	General License	2002	NAC-MPC	Yankee-MPC	Yankee-MPC		15	533	127.1
Zion Solutions	Zion	PWR	A1	Site Specific	2013	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)		61	2226	1,019.4
30 Total Utilities	73 Total Reactor Sites					23 Total Cask Systems	34 Total Canister Families		9 Total Bare Fuel Casks	2,501 Total Canisters and Bare Fuel Casks Loaded	102,729 Total Assemblies Loaded	30,014 Total MTiHM Loaded
										2,289 Canisters Loaded	93,035 Assemblies Loaded in Canisters	27,236 MTiHM Loaded in Canisters
										212 Bare Fuel Casks Loaded	9,694 Assemblies Loaded in Bare Fuel Casks	2,779 MTiHM Loaded in Bare Fuel Casks

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - C2 - All Reactors Operating - Wet and Dry Storage

   "ISFSI Only" is used in the table above for INL since the INL ISFSI is not at a reactor site.
2. The specific Canister variant is listed where known; otherwise, only the Canister Family is listed.
3. The inventory is current to the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263. See Section 2 for further explanation.

Appendix B
Canister Types in Dry Storage

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Table B-1 Canister Types Currently in Dry Storage

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Ameren	Callaway	C2	HI-STORM UMAX	MPC-37	MPC-37	Storage Only	General License
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Storage and Transportation	General License
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Storage and Transportation	General License
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Storage and Transportation	General License
Connecticut Yankee	Connecticut Yankee	A1	NAC-MPC	CY-MPC	CY-MPC, 26 Assy	Storage and Transportation	General License
Dairyland Power	La Crosse	A1	NAC-MPC	LACBWR	LACBWR	Storage and Transportation	General License
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
DOE	INL	ISFSI Only	NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	Storage Only	Site Specific
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Storage Only	General License
Dominion	Kewaunee	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	Storage and Transportation	General License
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	Storage and Transportation	General License
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	Storage and Transportation	General License
Dominion	North Anna	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	Storage and Transportation	General License
Dominion	North Anna	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	Storage and Transportation	General License
Dominion	Surry	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	Storage and Transportation	General License
Dominion	Surry	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	Storage and Transportation	General License
Duke	Brunswick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	Storage and Transportation	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Storage Only	General License
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Storage Only	General License
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Storage Only	General License
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Storage Only	General License
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Storage and Transportation	General License
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Storage and Transportation	General License
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Storage and Transportation	General License
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Storage Only	General License
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Storage Only	General License
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Storage Only	General License
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Storage Only	General License
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Storage and Transportation	General License
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Storage and Transportation	General License
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Storage and Transportation	General License
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Storage Only	General License
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Storage Only	General License
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Storage Only	General License
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Storage Only	General License
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	Storage Only	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
Duke	Robinson	C2	NUHOMS 0708	NUHOMS 07P	NUHOMS 07P	Storage Only	Site Specific
Duke	Robinson	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	Storage and Transportation	General License
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	Storage and Transportation	General License
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	Storage and Transportation	General License
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	Storage and Transportation	General License
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Entergy	ANO	C2	VSC-24	MSB	MSB-Long	Storage Only	General License
Entergy	Big Rock Point	A1	FuelSolutions	W74	W74T	Storage and Transportation	General License
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Entergy	Palisades	C2	HI-STORM FW	MPC-37	MPC-37	Storage Only	General License
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S	Storage and Transportation	General License
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	Storage and Transportation	General License
Entergy	Palisades	C2	VSC-24	MSB	MSB-Standard	Storage Only	General License
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Storage Only	General License
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Storage Only	General License
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32P	NUHOMS 32P	Storage Only	Site Specific
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32PHB	NUHOMS 32PHB	Storage Only	Site Specific
Exelon	Clinton	C2	HI-STORM FW	MPC-89	MPC-89	Storage Only	General License
Exelon	Dresden 1	B2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	Storage and Transportation	General License
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	Storage Only	General License
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Exelon	Ginna	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	Storage and Transportation	General License
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	Storage and Transportation	General License
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	Storage and Transportation	General License
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	Storage and Transportation	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	Storage and Transportation	General License
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	Storage and Transportation	General License
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	Storage and Transportation	General License
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	Storage and Transportation	General License
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	Storage and Transportation	General License
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	Storage and Transportation	General License
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
FirstEnergy	Beaver Valley	C2	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	Storage and Transportation	General License
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Storage Only	General License
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Storage Only	General License
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 1	Storage and Transportation	General License
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 2	Storage and Transportation	General License
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 3	Storage and Transportation	General License
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	Storage and Transportation	General License
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	Storage and Transportation	General License
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	Storage and Transportation	General License
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	Storage and Transportation	General License
NextEra Energy	Point Beach	C2	VSC-24	MSB	MSB-Short	Storage Only	General License
NextEra Energy	Seabrook	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	Storage and Transportation	General License
NextEra Energy	Seabrook	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	Storage and Transportation	General License
NextEra Energy	St. Lucie	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	Storage and Transportation	General License
NextEra Energy	St. Lucie	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	Storage and Transportation	General License
NextEra Energy	Turkey Point	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	Storage and Transportation	General License
NextEra Energy	Turkey Point	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	Storage and Transportation	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	Storage and Transportation	General License
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	Storage and Transportation	General License
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	Storage and Transportation	General License
OPPD	Fort Calhoun	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	Storage and Transportation	General License
PG&E	Diablo Canyon	C2	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	Storage and Transportation	Site Specific
PG&E	Humboldt Bay	A1	HI-STAR 100HB	MPC-HB	MPC-HB	Storage and Transportation	Site Specific
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	Storage and Transportation	Site Specific
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	Storage and Transportation	Site Specific
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	Storage Only	General License
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	Storage and Transportation	General License
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	Storage and Transportation	General License
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	Storage and Transportation	General License
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
SCE&G	V. C. Summer	C2	HI-STORM FW	MPC-37	MPC-37	Storage Only	General License
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	Storage and Transportation	Site Specific
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC	Storage and Transportation	Site Specific
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC	Storage and Transportation	Site Specific
Southern Cal Edison	SONGS 1	A2	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	Storage and Transportation	General License
Southern Cal Edison	SONGS 2	A2	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	Storage and Transportation	General License
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
Southern Nuclear	Hatch	C2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	Storage and Transportation	General License
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	Storage Only	General License
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	Storage and Transportation	General License
TVA	Browns Ferry	C2	HI-STORM FW	MPC-89	MPC-89	Storage Only	General License
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	Storage and Transportation	General License
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Storage Only	General License
TVA	Sequoyah	C2	HI-STORM FW	MPC-37	MPC-37	Storage Only	General License

Table B-1 Canister Types Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Licensed Purpose	Canister License Type
TVA	Watts Bar	C2	HI-STORM FW	MPC-37	MPC-37	Storage Only	General License
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Storage and Transportation	General License
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	Storage and Transportation	General License
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	Storage and Transportation	General License
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	Storage and Transportation	General License
YAEC	Yankee Rowe	A1	NAC-MPC	Yankee-MPC	Yankee-MPC	Storage and Transportation	General License
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Storage Only	General License
30 Total Utilities	71 Total Reactor Sites [4]		16 Total Cask Systems	34 Total Canister Families	54 Total Canisters	105 Reactor/Canister Combinations Certified for Storage and Transportation	142 Reactor/Canister Combinations Licensed for Storage Under a General License
						48 Reactor/Canister Combinations Certified for Storage Only	11 Reactor/Canister Combinations Licensed for Storage Under a Site Specific License

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - C2 - All Reactors Operating - Wet and Dry Storage

   "ISFSI Only" is used in the table above for INL since the INL ISFSI is not at a reactor site.
2. All Canister variants applicable to a Canister Family are listed except in cases where the specific Canister used is known. In these cases, only the Canister in use is listed.
3. All fuel stored at Indian Point 1 is stored in MPC-32 canisters. No MPC-32F canisters are used.
4. The quantity of reactor sites listed is less than that shown in Table A-1 since two reactor sites (Peach Bottom and Prairie Island) do not use dry storage canisters but only bare fuel casks.

Appendix C
Canistered Storage Casks Currently in Dry Storage

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Table C-1 Canistered Storage Casks Currently in Dry Storage

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Ameren	Callaway	C2	HI-STORM UMAX	MPC-37	MPC-37	HI-STORM UMAX Vertical Ventilated Module (PWR)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Vertical Concrete Cask (VCC)
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Vertical Concrete Cask (VCC)
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Vertical Concrete Cask (VCC)
Connecticut Yankee	Connecticut Yankee	A1	NAC-MPC	CY-MPC	CY-MPC, 26 Assy	CY-MPC Vertical Concrete Cask (VCC)
Dairyland Power	La Crosse	A1	NAC-MPC	LACBWR	LACBWR	LACBWR MPC Vertical Concrete Cask (VCC)
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
DOE	INL	ISFSI Only	NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	12T HSM

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC1
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC2
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC3
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC4
Dominion	Kewaunee	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 102 (PWR)
Dominion	Kewaunee	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 202
Dominion	Kewaunee	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 80 (PWR)
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	HSM Model 102 (PWR)
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	HSM Model 202
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	HSM Model 80 (PWR)
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 102 (PWR)
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 202
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 80 (PWR)
Dominion	North Anna	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	HSM-H (HD)
Dominion	North Anna	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	HSM-H (HD)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Dominion	Surry	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	HSM-H (HD)
Dominion	Surry	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	HSM-H (HD)
Duke	Brunswick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	HSM-H
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Vertical Concrete Cask CC1
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Vertical Concrete Cask CC2
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC1
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC2
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC3
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC4
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Vertical Concrete Cask CC1
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Vertical Concrete Cask CC2
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC1
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC2
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC3
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC4
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Vertical Concrete Cask (VCC)
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Vertical Concrete Cask (VCC)
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Vertical Concrete Cask (VCC)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Vertical Concrete Cask CC1
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Vertical Concrete Cask CC2
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC1
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC2
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC3
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Vertical Concrete Cask CC4
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Vertical Concrete Cask CC1
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Vertical Concrete Cask CC2
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC1
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC2
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC3
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC4
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Vertical Concrete Cask (VCC)
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Vertical Concrete Cask (VCC)
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Vertical Concrete Cask (VCC)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 102 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 102 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 152
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 152
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 202
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 202
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 80 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 80 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 102 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 102 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 152
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 152
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 202
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 202
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 80 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 80 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	HSM Model 102 (PWR)
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	HSM Model 202
Duke	Robinson	C2	NUHOMS 0708	NUHOMS 07P	NUHOMS 07P	07P HSM
Duke	Robinson	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	HSM-H

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Entergy	ANO	C2	VSC-24	MSB	MSB-Long	Vertical Concrete Cask (VCC)-Long

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	Big Rock Point	A1	FuelSolutions	W74	W74T	W150-Long
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Entergy	Palisades	C2	HI-STORM FW	MPC-37	MPC-37	HI-STORM FW Storage Overpack
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S	HSM-H
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 102 (PWR)
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 202
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 80 (PWR)
Entergy	Palisades	C2	VSC-24	MSB	MSB-Standard	Vertical Concrete Cask (VCC)-Standard

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 102 (PWR)
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 152
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 202
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 80 (PWR)
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 102 (PWR)
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 152
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 202
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 80 (PWR)
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32P	NUHOMS 32P	HSM Model 80 (PWR)
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32PHB	NUHOMS 32PHB	HSM-HB
Exelon	Clinton	C2	HI-STORM FW	MPC-89	MPC-89	HI-STORM FW Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Exelon	Dresden 1	B2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	HI-STAR 100 S/T Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100 Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100A Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S(232) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S(243) Storage Overpack
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Exelon	Ginna	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 102 (PWR)
Exelon	Ginna	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 202
Exelon	Ginna	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 80 (PWR)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 102 (BWR)
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 152
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 202
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 80 (BWR)
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 102 (BWR)
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 152
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 202
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 80 (BWR)
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM-H
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	HSM-H
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	HSM-H

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 102 (BWR)
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 152
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 202
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 80 (BWR)
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 102 (BWR)
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 152
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 202
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 80 (BWR)
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM-H
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	HSM-H
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	HSM-H
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 102 (BWR)
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 152
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 202
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 80 (BWR)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 102 (BWR)
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 152
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 202
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 80 (BWR)
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM-H
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	HSM-H
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	HSM-H
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
FirstEnergy	Beaver Valley	C2	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	HSM-H
FirstEnergy	Beaver Valley	C2	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	HSM-HS

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 102 (PWR)
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 152
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 202
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	HSM Model 80 (PWR)
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 102 (PWR)
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 152
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 202
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	HSM Model 80 (PWR)
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Vertical Concrete Cask (VCC)
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Vertical Concrete Cask (VCC)
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Vertical Concrete Cask (VCC)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 102 (BWR)
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 152
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 202
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 80 (BWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	HSM Model 102 (PWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	HSM Model 202
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	HSM Model 80 (PWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	HSM Model 102 (PWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	HSM Model 202
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	HSM Model 80 (PWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 102 (PWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 202
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 80 (PWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 102 (PWR)
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 202
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	HSM Model 80 (PWR)
NextEra Energy	Point Beach	C2	VSC-24	MSB	MSB-Short	Vertical Concrete Cask (VCC)-Short

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
NextEra Energy	Seabrook	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	HSM-H (HD)
NextEra Energy	Seabrook	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	HSM-H (HD)
NextEra Energy	St. Lucie	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	HSM-H (HD)
NextEra Energy	St. Lucie	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	HSM-H (HD)
NextEra Energy	Turkey Point	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	HSM-H (HD)
NextEra Energy	Turkey Point	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	HSM-H (HD)
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 102 (BWR)
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 152
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 202
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 80 (BWR)
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 102 (BWR)
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 152
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 202
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 80 (BWR)
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM-H
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	HSM-H
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	HSM-H
OPPD	Fort Calhoun	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 102 (PWR)
OPPD	Fort Calhoun	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 202
OPPD	Fort Calhoun	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	HSM Model 80 (PWR)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
PG&E	Diablo Canyon	C2	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	HI-STORM 100SA (229) Storage Overpack
PG&E	Humboldt Bay	A1	HI-STAR 100HB	MPC-HB	MPC-HB	HI-STAR 100HB S/T Overpack
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	TranStor
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	TranStor
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	HSM Model 102 (BWR)
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	HSM Model 152
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	HSM Model 202
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	HSM Model 80 (BWR)
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 102 (BWR)
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 152
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 202
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 80 (BWR)
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 102 (BWR)
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 152
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 202
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 80 (BWR)
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM-H
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	HSM-H
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	HSM-H

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
PSE&G	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
PSE&G	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
SCE&G	V. C. Summer	C2	HI-STORM FW	MPC-37	MPC-37	HI-STORM FW Storage Overpack
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	HSM Model 80 (PWR)
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC	HSM Model 80 (PWR)
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC	HSM Model 80 (PWR)
Southern Cal Edison	SONGS 1	A2	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	Advanced HSM
Southern Cal Edison	SONGS 2	A2	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	Advanced HSM

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Southern Nuclear	Hatch	C2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	HI-STAR 100 S/T Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100 Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100A Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S Version B (218) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S Version B (229) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S(232) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100S(243) Storage Overpack
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100 Storage Overpack
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100A Storage Overpack
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack
TVA	Browns Ferry	C2	HI-STORM FW	MPC-89	MPC-89	HI-STORM FW Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100 Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100A Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (218) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S Version B (229) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(232) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100S(243) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STORM 100SA (232) Storage Overpack

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100 Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100A Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (218) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S Version B (229) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(232) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100S(243) Storage Overpack
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-STORM 100SA (232) Storage Overpack
TVA	Sequoyah	C2	HI-STORM FW	MPC-37	MPC-37	HI-STORM FW Storage Overpack
TVA	Watts Bar	C2	HI-STORM FW	MPC-37	MPC-37	HI-STORM FW Storage Overpack
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 102 (BWR)
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 152
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 202
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	HSM Model 80 (BWR)

Table C-1 Canistered Storage Casks Currently in Dry Storage (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Storage Cask [3]
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 102 (BWR)
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 152
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 202
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM Model 80 (BWR)
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	HSM-H
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	HSM-H
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	HSM-H
YAEC	Yankee Rowe	A1	NAC-MPC	Yankee-MPC	Yankee-MPC	Yankee-MPC Vertical Concrete Cask (VCC)
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC1
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC2
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC3
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Vertical Concrete Cask CC4
30 Total Utilities	71 Total Reactor Sites [4]		16 Total Cask Systems	34 Total Canister Families	54 Total Canisters	40 Total Storage Casks

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - C2 - All Reactors Operating - Wet and Dry Storage

   "ISFSI Only" is used in the table above for INL since the INL ISFSI is not at a reactor site.
2. All Canister variants applicable to a Canister Family are listed except in cases where the specific Canister used is known. In these cases, only the Canister in use is listed.
3. All Storage Casks applicable to a Canister are listed.
4. The quantity of reactor sites listed is less than that shown in Table A-1 since two reactor sites (Peach Bottom and Prairie Island) do not use dry storage canisters but only bare fuel casks.

Appendix D
Transfer Casks

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Table D-1 Transfer Casks

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
AEP	D.C.Cook	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Ameren	Callaway	C2	GL	HI-STORM UMAX	MPC-37	MPC-37	HI-TRAC VW-PWR (maximum lead)
Ameren	Callaway	C2	GL	HI-STORM UMAX	MPC-37	MPC-37	HI-TRAC VW-PWR (minimum lead)
APS	Palo Verde	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Transfer Cask
APS	Palo Verde	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Transfer Cask
APS	Palo Verde	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Transfer Cask
Connecticut Yankee	Connecticut Yankee	A1	GL	NAC-MPC	CY-MPC	CY-MPC, 26 Assy	CY Transfer Cask
Dairyland Power	La Crosse	A1	GL	NAC-MPC	LACBWR	LACBWR	DPC/Yankee Transfer Cask

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Detroit Edison	Fermi 2	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Detroit Edison	Fermi 2	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Detroit Edison	Fermi 2	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Detroit Edison	Fermi 2	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
DOE	INL	ISFSI Only	SS	NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	MP187
DOE	INL	ISFSI Only	SS	NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	OS197
Dominion	Kewaunee	A2	GL	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	MTC-1
Dominion	Kewaunee	A2	GL	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	MTC-2
Dominion	Kewaunee	A2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197
Dominion	Kewaunee	A2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197H
Dominion	Kewaunee	A2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197L
Dominion	Millstone 2 & 3	B2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	OS197
Dominion	Millstone 2 & 3	B2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	OS197H
Dominion	Millstone 2 & 3	B2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	OS197L
Dominion	Millstone 2 & 3	B2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197
Dominion	Millstone 2 & 3	B2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197H
Dominion	Millstone 2 & 3	B2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197L

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Dominion	North Anna	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	OS187H
Dominion	North Anna	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	OS187H Type 1
Dominion	Surry	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	OS187H
Dominion	Surry	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	OS187H Type 1
Duke	Brunswick	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	OS197FC-B
Duke	Catawba	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	MTC-1
Duke	Catawba	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	MTC-1
Duke	Catawba	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	MTC-2
Duke	Catawba	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	MTC-1
Duke	Catawba	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	MTC-1
Duke	Catawba	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	MTC-2
Duke	Catawba	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Transfer Cask
Duke	Catawba	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Transfer Cask
Duke	Catawba	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Transfer Cask
Duke	McGuire	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	MTC-1
Duke	McGuire	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	MTC-1
Duke	McGuire	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	MTC-2
Duke	McGuire	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	MTC-1
Duke	McGuire	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	MTC-1
Duke	McGuire	C2	GL	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	MTC-2
Duke	McGuire	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Transfer Cask
Duke	McGuire	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Transfer Cask
Duke	McGuire	C2	GL	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Transfer Cask

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC-B
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197H
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC-B
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197L
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200FC
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Standardized
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC-B
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197H
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC-B
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197L
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200FC
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Standardized
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	OS197
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	OS197H
Duke	Oconee	C2	GL	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	OS197L

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC-B
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197H
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC-B
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197L
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200FC
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Standardized
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC-B
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197H
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC-B
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197L
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200FC
Duke	Oconee	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Standardized
Duke	Robinson	C2	GL	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	OS197
Duke	Robinson	C2	GL	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	OS197FC
Duke	Robinson	C2	GL	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	OS197H
Duke	Robinson	C2	SS	NUHOMS 0708	NUHOMS 07P	NUHOMS 07P	IF-300
Energy Northwest	Columbia	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Energy Northwest	Columbia	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Energy Northwest	Columbia	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Energy Northwest	Columbia	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-TRAC 100
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-TRAC 100D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-TRAC 125
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-TRAC 125D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-TRAC 100
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-TRAC 100D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-TRAC 125
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-TRAC 125D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-TRAC 100
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-TRAC 100D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-TRAC 125
Entergy	ANO	C2	GL	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-TRAC 125D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Entergy	ANO	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Entergy	ANO	C2	GL	VSC-24	MSB	MSB-Long	MTC
Entergy	Big Rock Point	A1	GL	FuelSolutions	W74	W74T	W100
Entergy	Grand Gulf	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Entergy	Grand Gulf	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Entergy	Grand Gulf	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Entergy	Grand Gulf	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Entergy	Indian Point 1	B1	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Entergy	Indian Point 2 & 3	B2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Entergy	Palisades	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (maximum lead)
Entergy	Palisades	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (minimum lead)
Entergy	Palisades	C2	GL	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S	OS197
Entergy	Palisades	C2	GL	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S	OS197FC
Entergy	Palisades	C2	GL	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S	OS197H

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Entergy	Palisades	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197
Entergy	Palisades	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197H
Entergy	Palisades	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197L
Entergy	Palisades	C2	GL	VSC-24	MSB	MSB-Standard	MTC
Entergy	Pilgrim	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Entergy	Pilgrim	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Entergy	Pilgrim	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Entergy	Pilgrim	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
Entergy	River Bend	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Entergy	River Bend	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Entergy	River Bend	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Entergy	River Bend	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
Entergy	Vermont Yankee	A2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Entergy	Vermont Yankee	A2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Entergy	Vermont Yankee	A2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Entergy	Vermont Yankee	A2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Entergy	Waterford	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Exelon	Braidwood	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Exelon	Byron	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC-B
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197H
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC-B
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197L
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200FC
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Standardized

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC-B
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197H
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC-B
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197L
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200FC
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Standardized
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 32P	NUHOMS 32P	OS197
Exelon	Calvert Cliffs	C2	SS	Standardized NUHOMS	NUHOMS 32PHB	NUHOMS 32PHB	CCNPP-FC
Exelon	Clinton	C2	GL	HI-STORM FW	MPC-89	MPC-89	HI-TRAC VW-BWR (maximum lead)
Exelon	Clinton	C2	GL	HI-STORM FW	MPC-89	MPC-89	HI-TRAC VW-BWR (minimum lead)
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 100
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 100D
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 125
Exelon	Dresden 2 & 3	B2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Exelon	Fitzpatrick	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Exelon	Fitzpatrick	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Exelon	Fitzpatrick	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Exelon	Fitzpatrick	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
Exelon	Ginna	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197
Exelon	Ginna	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197H
Exelon	Ginna	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197L
Exelon	LaSalle	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Exelon	LaSalle	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Exelon	LaSalle	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Exelon	LaSalle	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC-B
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197H
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC-B
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197L
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200FC
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Standardized

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197FC-B
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197H
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	OS197FC-B
Exelon	Limerick	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	OS197FC-B
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC-B
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197H
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC-B
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197L
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200FC
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Standardized
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197FC-B
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197H
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	OS197FC-B
Exelon	Nine Mile Point	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	OS197FC-B

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC-B
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197H
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC-B
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197L
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200FC
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Standardized
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197FC-B
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197H
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	OS197FC-B
Exelon	Oyster Creek	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	OS197FC-B
Exelon	Quad Cities	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Exelon	Quad Cities	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Exelon	Quad Cities	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Exelon	Quad Cities	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS197
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS197FC
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS197FC-B
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS197H
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS197HFC
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS197HFC-B
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS197L
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS200
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	OS200FC
FirstEnergy	Beaver Valley	C2	GL	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	Standardized
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197FC-B
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197H
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197HFC-B
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS197L
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	OS200FC
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Standardized
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197FC-B
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197H
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197HFC-B
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS197L
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	OS200FC
FirstEnergy	Davis-Besse	C2	GL	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Standardized

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
FirstEnergy	Perry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
FirstEnergy	Perry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
FirstEnergy	Perry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
FirstEnergy	Perry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Luminant	Comanche Peak	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Maine Yankee	Maine Yankee	A1	GL	NAC-UMS	UMS-PWR	TSC-Class 1	Class 1 Transfer Cask
Maine Yankee	Maine Yankee	A1	GL	NAC-UMS	UMS-PWR	TSC-Class 2	Class 2 Transfer Cask
Maine Yankee	Maine Yankee	A1	GL	NAC-UMS	UMS-PWR	TSC-Class 3	Class 3 Transfer Cask

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC-B
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197H
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC-B
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197L
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200FC
NextEra Energy	Duane Arnold	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Standardized
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	OS197
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	OS197H
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	OS197L
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	OS197
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	OS197H
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	OS197L
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197H
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197L

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197H
NextEra Energy	Point Beach	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	OS197L
NextEra Energy	Point Beach	C2	GL	VSC-24	MSB	MSB-Short	MTC
NextEra Energy	Seabrook	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	OS187H
NextEra Energy	Seabrook	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	OS187H Type 1
NextEra Energy	St. Lucie	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	OS187H
NextEra Energy	St. Lucie	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	OS187H Type 1
NextEra Energy	Turkey Point	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	OS187H
NextEra Energy	Turkey Point	C2	GL	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	OS187H Type 1
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC-B
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197H
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC-B
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197L
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200FC
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Standardized

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197FC-B
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197H
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	OS197FC-B
NPPD	Cooper	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	OS197FC-B
OPPD	Fort Calhoun	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197
OPPD	Fort Calhoun	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197H
OPPD	Fort Calhoun	C2	GL	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	OS197L
PG&E	Diablo Canyon	C2	SS	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	HI-TRAC 125D (Diablo)
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-TRAC 100
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-TRAC 100D
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-TRAC 125
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-TRAC 125D
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	HI-TRAC 100
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	HI-TRAC 100D
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	HI-TRAC 125
Portland	GE Trojan	A1	SS	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS197
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS197FC
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS197FC-B
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS197H
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS197HFC
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS197HFC-B
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS197L
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS200
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	OS200FC
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	Standardized
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC-B
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197H
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC-B
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197L
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200FC
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Standardized
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197FC-B
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197H
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	OS197FC-B
PPL	Susquehanna	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	OS197FC-B

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
PSE&G	Hope Creek	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
PSE&G	Hope Creek	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
PSE&G	Hope Creek	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
PSE&G	Hope Creek	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
PSE&G	Salem	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
SCE&G	V. C. Summer	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (maximum lead)
SCE&G	V. C. Summer	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (minimum lead)
SMUD	Rancho Seco	A1	SS	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	MP187
SMUD	Rancho Seco	A1	SS	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC	MP187
SMUD	Rancho Seco	A1	SS	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC	MP187

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Southern Cal Edison	SONGS 1	A2	GL	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	OS197
Southern Cal Edison	SONGS 1	A2	GL	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	OS197H
Southern Cal Edison	SONGS 2	A2	GL	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	OS197
Southern Cal Edison	SONGS 2	A2	GL	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	OS197H
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Southern Nuclear	Farley	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 100
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 100D
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 125
Southern Nuclear	Hatch	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	HI-TRAC 125D
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
Southern Nuclear	Vogtle	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
TVA	Browns Ferry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100
TVA	Browns Ferry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 100D
TVA	Browns Ferry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125
TVA	Browns Ferry	C2	GL	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-TRAC 125D

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
TVA	Browns Ferry	C2	GL	HI-STORM FW	MPC-89	MPC-89	HI-TRAC VW-BWR (maximum lead)
TVA	Browns Ferry	C2	GL	HI-STORM FW	MPC-89	MPC-89	HI-TRAC VW-BWR (minimum lead)
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 100D
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-TRAC 125D
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 100D
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125
TVA	Sequoyah	C2	GL	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	HI-TRAC 125D
TVA	Sequoyah	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (maximum lead)
TVA	Sequoyah	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (minimum lead)
TVA	Watts Bar	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (maximum lead)
TVA	Watts Bar	C2	GL	HI-STORM FW	MPC-37	MPC-37	HI-TRAC VW-PWR (minimum lead)

Table D-1 Transfer Casks (continued)

Utility	Reactor	Site Characteristic [1]	License Type [2]	Cask System	Canister Family	Canister [3]	Transfer Cask [4]
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197FC-B
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197H
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197HFC-B
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS197L
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	OS200FC
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	Standardized
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197FC-B
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	OS197H
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	OS197FC-B
Xcel Energy	Monticello	C2	GL	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	OS197FC-B
YAEC	Yankee Rowe	A1	GL	NAC-MPC	Yankee-MPC	Yankee-MPC	DPC/Yankee Transfer Cask
Zion Solutions	Zion	A1	SS	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	MTC-1
Zion Solutions	Zion	A1	SS	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	MTC-2
30 Total Utilities	71 Total Reactor Sites [5]			14 Total Cask Systems [6]	32 Total Canister Families [6]	52 Total Canisters [6]	33 Total Transfer Casks

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - C2 - All Reactors Operating - Wet and Dry Storage

   "ISFSI Only" is used in the table above for INL since the INL ISFSI is not at a reactor site.
2. GL - General License, SS - Site Specific
3. All Canister variants applicable to a Canister Family are listed except in cases where the specific Canister used is known. In these cases, only the Canister in use is listed.
4. All Storage Casks applicable to a Canister are listed.
5. The quantity of reactor sites listed is less than that shown in Table A-1 since two reactor sites (Peach Bottom and Prairie Island) do not use dry storage canisters but only bare fuel casks.
6. These totals are less than the totals in Table C-1 of Appendix C because the HI-STAR 100 storage system used at Dresden 1 and Hatch and the HI-STAR 100HB storage system used at Humboldt Bay do not utilize transfer casks.

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Appendix E
Transportation Casks

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Table E-1 Transportation Casks

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	28	896
AEP	D.C.Cook	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Ameren	Callaway	C2	HI-STORM UMAX	MPC-37	MPC-37	Not Available	6	222
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Universal Transport Cask	144	3,456
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Universal Transport Cask		
APS	Palo Verde	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Universal Transport Cask		
Connecticut Yankee	Connecticut Yankee	A1	NAC-MPC	CY-MPC, 26 Assy	CY-MPC, 26 Assy	NAC-STC Transport Cask	40	1,019
Dairyland Power	La Crosse	A1	NAC-MPC	LACBWR	LACBWR	NAC-STC Transport Cask	5	333
Detroit Edison	Fermi 2	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	12	816
DOE	INL	ISFSI Only	NUHOMS 12T	NUHOMS 12T	NUHOMS 12T	Not Available	29	177
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Not Available	16	592
Dominion	Kewaunee	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	MP197HB	14	448

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	MP197HB	13	416
Dominion	Millstone 2 & 3	B2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	MP197HB	18	576
Dominion	North Anna	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	MP197HB	31	992
Dominion	North Anna	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	MP197HB		
Dominion	Surry	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	MP197HB	29	928
Dominion	Surry	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	MP197HB		
Duke	Brunswick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB	28	1,708
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Not Available	10	370
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Not Available		
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Not Available		
Duke	Catawba	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Not Available		
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Universal Transport Cask	24	576
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Universal Transport Cask		
Duke	Catawba	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Universal Transport Cask		

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC1 (PWR)	Not Available	16	592
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Not Available		
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC3 (PWR)	Not Available		
Duke	McGuire	C2	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Not Available		
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 1	Universal Transport Cask	28	672
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 2	Universal Transport Cask		
Duke	McGuire	C2	NAC-UMS	UMS-PWR	TSC-Class 3	Universal Transport Cask		
Duke	Oconee [4]	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Not Available	44	1,056
Duke	Oconee [4]	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Not Available		
Duke	Oconee [4]	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Not Available	40	960
Duke	Oconee [4]	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Not Available		
Duke	Oconee	C2	Standardized NUHOMS	NUHOMS 24PHB	NUHOMS 24PHBL	Not Available	57	1,368
Duke	Robinson	C2	NUHOMS 0708	NUHOMS 07P	NUHOMS 07P	Not Available	8	56
Duke	Robinson	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-L	MP197HB	23	552

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
Energy Northwest	Columbia	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	36	2,448
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24 (HI-STORM)	HI-STAR 100	30	720
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24E (HI-STORM)	HI-STAR 100		
Entergy	ANO	C2	HI-STORM 100	MPC-24 (HI-STORM)	MPC-24EF (HI-STORM)	HI-STAR 100		
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	25	800
Entergy	ANO	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Entergy	ANO	C2	VSC-24	MSB	MSB-Long	Not Available	24	576
Entergy	Big Rock Point	A1	FuelSolutions	W74	W74T	TS125	7	441
Entergy	Grand Gulf	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	28	1,904
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	5	160
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	31	992
Entergy	Indian Point 2 & 3	B2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Entergy	Palisades	C2	HI-STORM FW	MPC-37	MPC-37	Not Available	4	148
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 24PTH	NUHOMS 24PTH-S	MP197HB	13	312
Entergy	Palisades	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	MP197HB	11	352
Entergy	Palisades	C2	VSC-24	MSB	MSB-Standard	Not Available	18	432

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
Entergy	Pilgrim	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	8	544
Entergy	River Bend	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	23	1,564
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	13	884
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	23	736
Entergy	Waterford	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	18	576
Exelon	Braidwood	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	26	832
Exelon	Byron	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Not Available	48	1,152
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Not Available		
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32P	NUHOMS 32P	Not Available	30	960
Exelon	Calvert Cliffs	C2	Standardized NUHOMS	NUHOMS 32PHB	NUHOMS 32PHB	Not Available	3	96
Exelon	Clinton	C2	HI-STORM FW	MPC-89	MPC-89	Not Available	6	534
Exelon	Dresden 1	B2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	HI-STAR 100	4	272
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	60	4,080
Exelon	Dresden 2 & 3	B2	HI-STORM 100	MPC-68M	MPC-68M	Not Available	8	544
Exelon	Fitzpatrick	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	21	1,428
Exelon	Ginna	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	MP197HB	10	320
Exelon	LaSalle	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	24	1,632

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	19	1,159
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	17	1,037
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB		
Exelon	Limerick	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	MP197HB		
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	16	976
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	8	488
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB		
Exelon	Nine Mile Point	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	MP197HB		
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	8	488
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	19	1,159
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB		
Exelon	Oyster Creek	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	MP197HB		
Exelon	Quad Cities	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	48	3,264

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
FirstEnergy	Beaver Valley	C2	Standardized NUHOMS	NUHOMS 37PTH	NUHOMS 37PTH-S	MP197HB	4	148
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PL	Not Available	3	72
FirstEnergy	Davis-Besse	C2	Standardized NUHOMS	NUHOMS 24P	NUHOMS 24PS	Not Available		
FirstEnergy	Perry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	20	1,360
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	29	928
Luminant	Comanche Peak	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 1	Universal Transport Cask	60	1,434
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 2	Universal Transport Cask		
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 3	Universal Transport Cask		
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	20	1,220
NextEra Energy	Duane Arnold	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L100	MP197HB	28	896
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-L125	MP197HB		
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	MP197HB		
NextEra Energy	Point Beach	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S125	MP197HB		
NextEra Energy	Point Beach	C2	VSC-24	MSB	MSB-Short	Not Available	16	384

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
NextEra Energy	Seabrook	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	MP197HB	14	448
NextEra Energy	Seabrook	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	MP197HB		
NextEra Energy	St. Lucie	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	MP197HB	26	832
NextEra Energy	St. Lucie	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	MP197HB		
NextEra Energy	Turkey Point	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH	MP197HB	18	576
NextEra Energy	Turkey Point	C2	NUHOMS HD	NUHOMS 32PTH	NUHOMS 32PTH Type 1	MP197HB		
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	8	488
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	10	610
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB		
NPPD	Cooper	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	MP197HB		
OPPD	Fort Calhoun	C2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	MP197HB	10	320
PG&E	Diablo Canyon	C2	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	Not Available	49	1,568
PG&E	Humboldt Bay	A1	HI-STAR 100HB	MPC-HB	MPC-HB	HI-STAR 100HB	5	390
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-STAR 100	29	675
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	HI-STAR 100	5	116

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 52B	NUHOMS 52B	Not Available	27	1,404
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	48	2,928
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	22	1,342
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB		
PPL	Susquehanna	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	MP197HB		
PSEG	Hope Creek	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	29	1,972
PSEG	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	27	864
PSEG	Salem	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
SCE&G	V. C. Summer	C2	HI-STORM FW	MPC-37	MPC-37	Not Available	4	148
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	MP187	18	432
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC	MP187	1	13
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC	MP187	2	48
Southern Cal Edison	SONGS 1	A2	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	MP187	17	395
Southern Cal Edison	SONGS 2	A2	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	MP197HB	33	792
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	42	1,344
Southern Nuclear	Farley	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		

Table E-1 Transportation Casks (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister [2]	Transportation Cask	Total Canisters Loaded [3]	Total Assemblies Loaded [3]
Southern Nuclear	Hatch	C2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	HI-STAR 100	3	204
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	60	4,080
Southern Nuclear	Hatch	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68M	Not Available	10	680
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	26	832
Southern Nuclear	Vogtle	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
TVA	Browns Ferry	C2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	45	3,060
TVA	Browns Ferry	C2	HI-STORM FW	MPC-89	MPC-89	Not Available	19	1,691
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	44	1,408
TVA	Sequoyah	C2	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
TVA	Sequoyah	C2	HI-STORM FW	MPC-37	MPC-37	Not Available	5	185
TVA	Watts Bar	C2	HI-STORM FW	MPC-37	MPC-37	Not Available	6	222
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	10	610
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	6	366
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB		
Xcel Energy	Monticello	C2	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	MP197HB		
YAEC	Yankee Rowe	A1	NAC-MPC	Yankee-MPC	Yankee-MPC	NAC-STC Transport Cask	15	533
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC PWR	Not Available	61	2,226
30 Total Utilities	71 Total Reactor Sites [5]		16 Total Cask Systems	34 Total Canister Families	54 Total Canisters	8 Total Transport Casks	2,289	93,035

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - C2 - All Reactors Operating - Wet and Dry Storage

   "ISFSI Only" is used in the table above for INL since the INL ISFSI is not at a reactor site.
2. All Canister variants applicable to a Canister Family are listed except in cases where the specific Canister used is known. In these cases, only the Canister in use is listed.
3. The inventory is current to the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263. See Section 2 for further explanation.
4. The NUHOMS 24P Canister Family and its associated canister variants (24PL and 24PS Canisters) are listed twice for Duke/Oconee, once for spent fuel stored under a General License and once for spent fuel stored under a Specific License.
5. The quantity of reactor sites listed is less than that shown in Table A-1 since two reactor sites (Peach Bottom and Prairie Island) do not use dry storage canisters but only bare fuel casks.

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Appendix F
Projected Inventory and Canistered Transportation Casks for Shutdown Reactor Sites

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Table F-1 Projected Inventory of SNF at Shutdown Reactor Sites

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister	Total Canisters Or Casks Loaded [2]	Assemblies Stored [2]	MTiHM
Connecticut Yankee	Connecticut Yankee	PWR	A1	GL	2004	NAC-MPC	CY-MPC	CY-MPC, 26 Assy	40	1,019	413.53
Dairyland Power	La Crosse	BWR	A1	GL	2012	NAC-MPC	LACBWR	LACBWR	5	333	37.97
Entergy	Big Rock Point	BWR	A1	GL	2002	FuelSolutions	W74	W74T	7	441	57.92
Maine Yankee	Maine Yankee	PWR	A1	GL	2002	NAC-UMS	UMS-PWR		60	1,434	542.26
PG&E	Humboldt Bay	BWR	A1	SS	2008	HI-STAR 100HB	MPC-HB	MPC-HB	5	390	28.94
Portland	GE Trojan	PWR	A1	SS	2002	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	29	675	306.57
Portland	GE Trojan	PWR	A1	SS	2002	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	5	116	52.69
SMUD	Rancho Seco	PWR	A1	SS	2001	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	18	432	200.12
SMUD	Rancho Seco	PWR	A1	SS	2001	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC	1	13	6.02
SMUD	Rancho Seco	PWR	A1	SS	2001	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC	2	48	22.24
YAEC	Yankee Rowe	PWR	A1	GL	2002	NAC-MPC	Yankee-MPC	Yankee-MPC	15	533	127.13
Zion Solutions	Zion	PWR	A1	SS	2013	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	61	2,226	1,019.41

Table F-1 Projected Inventory of SNF at Shutdown Reactor Sites (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister	Total Canisters Or Casks Loaded [2]	Assemblies Stored [2]	MTiHM
Dominion	Kewaunee	PWR	A2	GL	2017	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	24	887	344.63
Dominion	Kewaunee	PWR	A2	GL	2009	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	14	448	174.07
Entergy	Vermont Yankee	BWR	A2	GL	2008	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	58	3,877	703.66
OPPD	Fort Calhoun	PWR	A2	GL	2006	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	40	1,280	468.57
Southern Cal Edison	SONGS 1	PWR	A2	GL	2003	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	17	395	146.20
Southern Cal Edison	SONGS 2	PWR	A2	GL	2003	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	33	792	320.94
Southern Cal Edison	SONGS 2 & 3	PWR	A2	GL		HI-STORM UMAX	MPC-37	MPC-37	73	2,668	1,141.67
Duke	Crystal River	PWR	A3	GL		Standardized NUHOMS	NUHOMS 32PTH1		39	1,243	582.23
Entergy	Indian Point 1	PWR	B1	GL	2008	HI-STORM 100	MPC-32 (HI-STORM)		5	160	30.58
Exelon	Dresden 1	BWR	B2	GL	2000	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	4	272	27.72
Exelon	Dresden 1	BWR	B2	GL		HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	10	617	62.87
Dominion	Millstone 1	BWR	B3	GL		Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	48	2,884	525.62

Table F-1 Projected Inventory of SNF at Shutdown Reactor Sites (continued)

Utility	Reactor	Reactor Type	Site Characteristic [1]	ISFSI License Type	Year Of First Load	Cask System	Canister Family	Canister	Total Canisters Or Casks Loaded [2]	Assemblies Stored [2]	MTiHM
Entergy	Indian Point 2 & 3	PWR	AS - W&D	GL	2008	HI-STORM 100	MPC-32 (HI-STORM)		121	3,849	1,748.00
Entergy	Pilgrim	BWR	AS - W&D	GL	2015	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	61	4,113	726.00
Exelon	Oyster Creek	BWR	AS - W&D	GL	2002	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	59	3,552	627.31
Exelon	Oyster Creek	BWR	AS - W&D	GL	2013	Standardized NUHOMS	NUHOMS 61BTH		19	1,159	204.69
PG&E	Diablo Canyon 1	PWR	AS - W&D	SS	2009	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	74	2,357	1,010.00
PG&E	Diablo Canyon 2	PWR	AS - W&D	SS		HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	66	2,094	898.00
14 Total Utilities	24 Total Reactor Sites					11 Total Cask Systems	22 Total Canister Families		1,013 Total Canisters Loaded	40,307 Total Assemblies Loaded	12,558 Total MTiHM Loaded

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - A3 - All Reactors Shut Down - Wet Storage Only
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - B3 - At Least One Operating and One Shutdown Reactor - Wet Storage Only

   "Announced Shutdown – Wet and Dry Storage" (AS – W&D) is used in the table above to designate intent to shut down prior to initial ISF operations.
2. The projected inventory is based on the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263. See Section 2 and Section 4.6.1 for further explanation.

Table F-2 Canistered System Transportation Casks for Shutdown Reactor Sites

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister	Transportation Cask	Total Canisters Loaded [2]	Total Assemblies Loaded [2]
Connecticut Yankee	Connecticut Yankee	A1	NAC-MPC	CY-MPC	CY-MPC, 26 Assy	NAC-STC Transport Cask	40	1,019
Dairyland Power	La Crosse	A1	NAC-MPC	LACBWR	LACBWR	NAC-STC Transport Cask	5	333
Entergy	Big Rock Point	A1	FuelSolutions	W74	W74T	TS125	7	441
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 1	Universal Transport Cask	60	1,434
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 2	Universal Transport Cask		
Maine Yankee	Maine Yankee	A1	NAC-UMS	UMS-PWR	TSC-Class 3	Universal Transport Cask		
PG&E	Humboldt Bay	A1	HI-STAR 100HB	MPC-HB	MPC-HB	HI-STAR 100HB	5	390
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24E (TranStor)	HI-STAR 100	29	675
Portland	GE Trojan	A1	HI-STORM TranStor	MPC-24 (TranStor)	MPC-24EF (TranStor)	HI-STAR 100	5	116
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FC-DSC	NUHOMS FC-DSC	MP187	18	432
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FF-DSC	NUHOMS FF-DSC	MP187	1	13
SMUD	Rancho Seco	A1	Standardized NUHOMS	NUHOMS FO-DSC	NUHOMS FO-DSC	MP187	2	48
YAEC	Yankee Rowe	A1	NAC-MPC	Yankee-MPC	Yankee-MPC	NAC-STC Transport Cask	15	533
Zion Solutions	Zion	A1	NAC-MAGNASTOR	TSC PWR	TSC4 (PWR)	Not Available	61	2,226

Table F-2 Canistered System Transportation Casks for Shutdown Reactor Sites (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister	Transportation Cask	Total Canisters Loaded [2]	Total Assemblies Loaded [2]
Dominion	Kewaunee	A2	NAC-MAGNASTOR	TSC PWR	TSC2 (PWR)	Not Available	24	887
Dominion	Kewaunee	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	MP197HB	14	448
Entergy	Vermont Yankee	A2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	58	3,877
OPPD	Fort Calhoun	A2	Standardized NUHOMS	NUHOMS 32PT	NUHOMS 32PT-S100	MP197HB	40	1,280
Southern Cal Edison	SONGS 1	A2	Advanced NUHOMS	NUHOMS 24PT1	NUHOMS 24PT1	MP187	17	395
Southern Cal Edison	SONGS 2	A2	Advanced NUHOMS	NUHOMS 24PT4	NUHOMS 24PT4	MP197HB	33	792
Southern Cal Edison	SONGS 2 & 3	A2	HI-STORM UMAX	MPC-37	MPC-37	Not Available	73	2,668
Duke	Crystal River	A3	Standardized NUHOMS	NUHOMS 32PTH1	NUHOMS 32PTH1-L	MP197HB	39	1,243
Duke	Crystal River	A3	Standardized NUHOMS	NUHOMS 32PTH1	NUHOMS 32PTH1-M	MP197HB		
Duke	Crystal River	A3	Standardized NUHOMS	NUHOMS 32PTH1	NUHOMS 32PTH1-S	MP197HB		
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32 (HI-STORM)	HI-STAR 100	5	160
Entergy	Indian Point 1	B1	HI-STORM 100	MPC-32 (HI-STORM)	MPC-32F	Not Available		
Exelon	Dresden 1	B2	HI-STAR 100	MPC-68 (HI-STAR)	MPC-68 (HI-STAR)	HI-STAR 100	4	272
Exelon	Dresden 1	B2	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	10	617
Dominion	Millstone 1	B3	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	48	2,884
Dominion	Millstone 1	B3	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		

Table F-2 Canistered System Transportation Casks for Shutdown Reactor Sites (continued)

Utility	Reactor	Site Characteristic [1]	Cask System	Canister Family	Canister	Transportation Cask	Total Canisters Loaded [2]	Total Assemblies Loaded [2]
Entergy	Pilgrim	AS - W&D	HI-STORM 100	MPC-68 (HI-STORM)	MPC-68 (HI-STORM)	HI-STAR 100	61	4,113
Exelon	Oyster Creek	AS - W&D	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197	59	3,552
Exelon	Oyster Creek	AS - W&D	Standardized NUHOMS	NUHOMS 61BT	NUHOMS 61BT	MP197HB		
Exelon	Oyster Creek	AS - W&D	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 1	MP197HB	19	1,159
Exelon	Oyster Creek	AS - W&D	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTH Type 2	MP197HB		
Exelon	Oyster Creek	AS - W&D	Standardized NUHOMS	NUHOMS 61BTH	NUHOMS 61BTHF	MP197HB		
PG&E	Diablo Canyon 1	AS - W&D	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	HI-STAR 100	74	2,357
PG&E	Diablo Canyon 2	AS - W&D	HI-STORM 100	MPC-32 (Diablo)	MPC-32 (Diablo)	Not Available	66	2,094
14 Total Utilities	24 Total Reactor Sites		11 Total Cask Systems	22 Total Canister Families			1,013	40,307

Notes:

1. The Site Characteristic is defined in the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263, as one of the following:
   - A1 - All Reactors Shut Down - Dry Storage Only
   - A2 - All Reactors Shut Down - Wet and Dry Storage
   - A3 - All Reactors Shut Down - Wet Storage Only
   - B1 - At Least One Operating and One Shutdown Reactor - Dry Storage Only
   - B2 - At Least One Operating and One Shutdown Reactor - Wet and Dry Storage
   - B3 - At Least One Operating and One Shutdown Reactor - Wet Storage Only

   "Announced Shutdown – Wet and Dry Storage" (AS – W&D) is used in the table above to designate intent to shut down prior to initial ISF operations.
2. The projected inventory is based on the most recent version of the report, *Commercial Spent Nuclear Fuel and High-Level Radioactive Waste Inventory Report*, FCRD-NFST-2013-000263. See Section 2 and Section 4.6.1 for further explanation.
3. All fuel stored at Indian Point 1 is stored in MPC-32 canisters. No MPC-32F canisters are used.

Appendix G
Changes to the Dry Storage Cask/Inventory Database

Appendix G is specific to Revision 2 of this *Dry Storage Cask Inventory Assessment* report and not applicable to Revision 3 or subsequent revisions; therefore, it has been deleted. Appendix G documented changes to the Dry Storage Cask/Inventory Database relevant to Revision 2 of this report and was intended to serve as an aid to ORNL personnel for making similar modifications to data contained in the Unified Database.

As discussed in Section 3.1.1, changes made to the Dry Storage Cask/Inventory Database supporting Revision 3 of this report are documented in the report, *Updated Cask and Canister Information for the Unified Database* [Jones 2017]. The report, *Updated Cask and Canister Information for the Unified Database*, contains updated data on bare fuel casks, canisters, canistered storage casks and canistered transportation casks. This updated data is based on a review of the data contained in the ATI-TR-13047 report against more reputable sources such as Certificates of Compliance, Technical Specifications and Final Safety Analysis Reports.

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