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Spent Nuclear Fuel Shipping Cask Handling Capabilities of Commercial Light Water Reactors

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SPENT NUCLEAR FUEL SHIPPING CASK
HANDLING CAPABILITIES OF
COMMERCIAL LIGHT WATER REACTORS

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ABSTRACT

Realistic truck/rail modal fractions (defined as the fraction of spent fuel that will be received by truck and rail transport modes) are needed to support the designs of federally-owned or operated spent fuel storage or disposal facilities. Information is also needed on the spent fuel shipping cask handling capabilities of commercial nuclear power plants. This report describes an evaluation of the cask handling capabilities of those reactors which are operating or under construction. A computerized data base that includes cask handling information was developed with information from the literature and utility-supplied data. The capability of each plant to receive and handle existing spent fuel shipping casks was then evaluated. Modal fractions were then calculated based on the results of these evaluations and the quantities of spent fuel projected to be generated by commercial nuclear power plants through 1998.

The results indicated that all plants are capable of receiving and handling truck casks. Up to 118 out of 130 reactors (91%) could potentially handle the larger and heavier rail casks if the maximum capability of each facility is utilized. Design and analysis efforts and physical modifications to some plants would be needed to achieve this high rail percentage. These modifications would be needed to satisfy regulatory requirements, increase lifting capabilities, develop rail access (either through construction or upgrading rail spurs or intermodal shipments^(a)), or improve other deficiencies. The remaining 12 reactors were determined to be capable of handling only the smaller truck casks.

The percentage of plants that could receive and handle rail casks in the near-term (i.e., assuming the current limitations are not removed) would be reduced to 64%. The primary reason for a plant to be judged incapable of handling rail casks in the near-term was a lack of rail access. The remaining 36% of the plants would be limited to truck shipments.

(a) See glossary.

The modal fraction calculations indicated that up to 93% of the spent fuel accumulated by 1998 could be received at federal storage or disposal facilities via rail (based on each plant's maximum capabilities). If the near-term cask handling capabilities are considered, the rail percentage is reduced to 62%. However, most of this difference could potentially be shipped offsite from reactors either via barge or heavy-haul truck intermodal shipments(a).

(a) See glossary.

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GLOSSARY/DEFINITIONS

The following definitions are provided to clarify the terminology used in this report so definitions of a number of terms could be removed from the text.

Barge Feasibility	Indicates plant is located on a navigable waterway and could potentially ship spent fuel offsite directly by barge. Existence of wharf or landing slip is not necessary for plants to have barge feasibility.
Barge/Rail Intermodal Feasibility	Indicates plants which could potentially ship spent fuel offsite directly by barge in a rail cask. Requires that the plant has barge feasibility and in-plant rail cask handling capabilities (see definition of in-plant capabilities)
BWR	Boiling water reactor.
Cask Loading Pool	Specially designed and operated water-filled pool (or water basin) for loading spent fuel assemblies into transportation containers. The pool may be located in a corner of the spent fuel storage pool or it may be a separate structure connected to the storage pool by a water-filled transfer canal.
Commercial Spent Fuel Management (CSFM) Program	The CSFM Program is a DOE-sponsored program at PNL with the following objectives: 1) to encourage and expedite the implementation of existing and new spent fuel storage technologies; 2) to accelerate the availability of dry storage and rod consolidation technologies through licensed cooperative cooperative demonstrations at reactor sites and unlicensed testing at federal facilities; and 3) to provide the planning for a federal capability to store up to 1900 MTU of spent fuel for those utilities that the NRC determines cannot reasonably provide increased at-reactor storage when needed.
Current Capabilities	A term used in this evaluation to describe results. Indicates which types of shipping casks could be handled at each plant <u>without</u> major modifications of cask handling facilities. Includes consideration of technical specifications, derated crane capacities, and rail access onto the plant site.
DOE	U.S. Department of Energy.
DOE-EIA	DOE-Energy Information Administration.
Gross Vehicle Weight (GVW)	The combined weight of the cargo, shipping container, tractor-trailer or railcar, and ancillary equipment.

Heavy-Haul Truck Shipment	Shipment of overweight or overdimension cargo that requires special equipment. This type of shipment is often associated with intermodal shipments where a heavy rail cask is transported by heavy-haul truck to a rail siding (for plants that do not have rail access but wish to use rail casks) or barge slip.
Heavy-Haul Truck/Rail Intermodal Feasibility	Indicates plants which are not provided with rail access but which could potentially ship spent fuel offsite in a rail cask via heavy-haul truck shipment. A heavy-haul truck configuration would be used to move the cask to a rail siding where it would be removed from the truck and loaded onto a railcar for subsequent movement (see also heavy-haul truck shipment)
Intermodal Shipment	A shipment that is performed using two or more transport modes. See barge/rail and heavy-haul truck/intermodal feasibility.
In-plant Capabilities	A second term that was used to describe results. Indicates the types of shipping casks that could be handled at each plant based on the maximum capabilities of cask handling facilities. Does not consider technical specifications, rail access, and derated crane capacities because it was assumed that restrictions based on these parameters could potentially be overcome.
Legal-weight Truck (LWT) Shipment	A shipment that can be transported at a gross vehicle weight (GVW) that is no higher than the weight limits beyond which states impose restrictions and require special permits (see also legal-weight truck). The maximum GVW that has been imposed by most states is 80,000 lbs.
Modal fraction	Fraction of spent fuel shipments that will be received at a Monitored Retrievable Storage facility or a geologic disposal repository by either highway or rail transport modes.
LWR	Light water reactor.
NRC	U.S. Nuclear Regulatory Commission.
Overweight Truck (OWT) Shipment	A shipment that is transported at a GVW in excess of legal weight limitations imposed by states (see also legal-weight truck). These shipments require special permits in each state and are subject to certain travel restrictions in some states (e.g., restricted to a certain time of day and time of year).

PNL	Pacific Northwest Laboratory.
PWR	Pressurized water reactor.
Rail Access	The presence of a serviceable railspur that extends into a plant's cask handling facilities.
Spent Fuel Storage Pool	Specially designed and operated water pool (or water basin) for storing, cooling, shielding, and maintaining spent (irradiated) fuel assemblies.
Technical Specifications	At nuclear power plants, technical specifications define plant variables, operating conditions, surveillance requirements, and administrative controls which are considered necessary to assure the health and safety of the public. Technical specifications are derived from analyses and evaluations of plant systems and components.
Transport Mode	The manner or way in which spent fuel is transported; i.e., via highway, rail, water, or air. In this country, spent fuel has been transported only via the highway and rail modes.
Utility Spent Fuel Data Verification Form	Questionnaires that were sent to nuclear utilities to gather spent fuel storage data. These forms provided the basis for a comprehensive, computerized data management system for LWR storage requirements data. The system is operated by Pacific Northwest Laboratory (PNL) for the Department of Energy's Commercial Spent Fuel Management Program.

1.0 INTRODUCTION AND SUMMARY

The Nuclear Waste Policy Act of 1982 (NWPA) establishes the framework for the ultimate disposal of commercially-generated, high-level radioactive wastes and spent nuclear fuel. The NWPA specifies that the Department of Energy (DOE) will begin to accept these waste materials beginning in 1998 at a Monitored Retrievable Storage (MRS) facility or geologic disposal repository. These facilities will be part of the commercial nuclear waste management system that is comprised of nuclear reactors, a transportation system, interim storage facilities (if needed), and a disposal repository. The DOE will take title to spent nuclear fuel at commercial nuclear power plant sites and transport the spent fuel to federally-owned or operated storage or disposal facilities. The DOE, which will become a major shipper of radioactive wastes in the future, is currently involved in long-range planning activities to assure a safe and cost-effective transportation system.

Several DOE contractors are currently developing preliminary designs of waste receiving and handling (R&H) systems for MRS and repository facilities. R&H facilities will be designed to receive waste shipments, unload wastes from transportation packagings, place the containers in overpacks (if necessary), and prepare the waste containers for emplacement in interim storage or disposal locations. The current design receipt rates for MRS and repository facilities are 3600 MTU and 3000 MTU of spent fuel, respectively, (or equivalent) per year. Based on approximate spent fuel shipping cask capacities of one MTU per truck shipment and 10 MTU per rail shipment, a range of 300 shipments per year to 3000 shipments per year of spent fuel will be required. The actual number of shipments per year will depend upon the mix of truck and rail shipments that will be received.

Realistic truck/rail modal fractions (defined as the fraction of spent fuel that will be received by truck and rail transport modes) and information on spent nuclear fuel shipping cask handling capabilities at reactor sites are needed to support MRS facility and repository design and environmental

assessment activities. As a result, the Transportation Technology Center (TTC) at Sandia National Laboratories, DOE's prime contractor for transportation related research and development, directed this evaluation that was performed by the Pacific Northwest Laboratory (PNL). The objective of this evaluation is to determine spent fuel shipping cask handling capabilities and limitations of commercial nuclear power plants. This evaluation is an extension of a similar evaluation that was performed for the Commercial Spent Fuel Management (CSFM) Program (Konzek and Daling 1984). The scope of the CSFM study, however, was limited to evaluation of a select group of reactors that are nearing their maximum onsite spent fuel storage capacity. This evaluation includes all commercial light water reactors (LWR's) currently operating and under construction.

The cask handling capability evaluations were facilitated by development of a computerized data base that includes cask handling information for nuclear power plants that are either operating or under construction. Both in-plant and ex-plant cask handling parameter data was collected (in-plant refers to facilities and equipment within the fences of the power plant site and ex-plant refers to facilities outside of the fences). In addition, accessibility of each nuclear power plant to roads, railways, and navigable waterways for barge shipping as well as capabilities and limitations of the cask handling equipment and facilities are considered in this report.

The cask handling parameter data was collected from various sources. The first source was the data collected for the Commercial Spent Fuel Management (CSFM) Program's spent fuel data base (DOE 1984). In previous years, the CSFM Program collected, but did not tabulate or verify, cask handling data that was provided by utilities. Thus, one task of this evaluation consisted of reviewing and tabulating existing data. Information from the literature, which included plant-specific Preliminary and Final Safety Analysis Reports (PSARs and FSARs), was also collected. The purpose of this review was to identify missing cask handling parameter data. A second task was performed to verify that the cask handling parameter data was accurate and to obtain missing data. This data verification task was performed by making telephone contacts with utility

personnel knowledgeable about their plant's cask handling capabilities. The data was then entered into a computerized data base to permit easy retrieval and sorting of data. After the cask handling parameter data was collected and verified, it was analyzed to determine whether each plant could handle legal weight truck (LWT), overweight truck (OWT), or rail spent fuel shipping cask types (see glossary for definitions). This involved comparing the cask handling parameter data with the physical dimensions and loaded weights of each type of cask.

The cask handling data base developed in this evaluation is contained in Appendix A. This appendix represents a "facilities directory" of cask handling capabilities of commercial nuclear power plants. It should be noted that the data presented in Appendix A represents each plant's current cask handling capabilities and limitations. These data are subject to change in the future as utilities are faced with the need to perform spent fuel shipments. Since many utilities are not planning to ship spent fuel until the mid- to late- 1990's, detailed cask-handling preparations and analyses have not been performed by such utilities. Therefore, they are uncertain about their full capabilities and limitations. For example, one plant was originally designed and constructed to receive and handle a large rail cask. After the plant went into commercial operation, the rail spur serving the site was abandoned and paved over, limiting the plant to truck shipments. However, it is still feasible for the plant to re-build the rail spur if they choose. Consequently, the facilities directory should not be considered "final" nor should it be construed as an absolute indication that a utility will ship by a specific mode.

Table 1.1 presents the results of the cask handling capability evaluations of commercial nuclear power plants. The table shows which of the three types of shipping casks can be received and handled at each plant. The table indicates in-plant handling capabilities, rail access information, the feasibility

TABLE 1.1. Spent Fuel Shipping Cask Handling Capabilities of Commercial Nuclear Power Plants(a)

PLANT NAME (b)	IN-PLANT CAPABILITIES (c)						CURRENT CAPABILITIES (g)		
	LWT	QWT	RAIL	RAIL (b) ACCESS	BARGE (e) FEASIBILITY	INTERMODAL (f) FEASIBILITY	LWT	QWT	RAIL
Arkansas Nuclear One - 1 (PWR)*	X	X	X	X			X	X	X
Arkansas Nuclear One - 2 (PWR)*	X	X	X	X			X	X	X
Arnold (BWR)*	X	X	X	X			X	X	X
Beaver Valley - 1 (PWR)*	X	X	X	X	X		X	X	X
Beaver Valley - 2 (PWR)*	X	X	X	X	X		X	X	X
Bellefonte - 1 (PWR)	X	X	X	X	X		X	X	X
Bellefonte - 2 (PWR)	X	X	X	X	X		X	X	X
Big Rock Point (BWR)*	X			X	X		X		
Braidwood - 1 (PWR)	X	X	X	X			X	X	X
Braidwood - 2 (PWR)	X	X	X	X			X	X	X
Browns Ferry - 1 (BWR)*	X	X	X		X	X	X	X	
Browns Ferry - 2 (BWR)*	X	X	X		X	X	X	X	
Browns Ferry - 3 (BWR)*	X	X	X		X	X	X	X	
Brunswick - 1 (BWR)*	X	X	X	X			X	X	X
Brunswick - 2 (BWR)*	X	X	X	X			X	X	X
Byron - 1 (PWR)*	X	X	X	X			X	X	X
Byron - 2 (PWR)	X	X	X	X			X	X	X
Callaway - 1 (PWR)*	X	X	X		X	X	X	X	
Calvert Cliffs - 1 (PWR)*	X	X	X		X	X	X		
Calvert Cliffs - 2 (PWR)*	X	X	X		X	X	X		
Catawba - 1 (PWR)	X	X	X	X			X	X	X
Catawba - 2 (PWR)	X	X	X	X			X	X	X
Clinton - 1 (BWR)	X	X	X	X			X	X	X
Comanche Peak - 1 (PWR)	X	X	X	X			X	X	X
Comanche Peak - 2 (PWR)	X	X	X	X			X	X	X
Cooper (BWR)*	X	X	X	X	X		X	X	X
Crystal River - 3 (PWR)*	X	X	X		X	X	X	X	
D.C. Cook - 1 (PWR)*	X	X	X	X	X		X	X	X
D.C. Cook - 2 (PWR)*	X	X	X	X	X		X	X	X
Davis Besse (PWR)*	X	X	X	X	X		X	X	X
Diablo Canyon - 1 (PWR)*	X	X	X		X	X	X	X	
Diablo Canyon - 2 (PWR)	X	X	X		X	X	X	X	
Dresden - 1 (BWR)	X	X		X	X		X	X	
Dresden - 2 (BWR)*	X	X	X	X	X		X	X	X
Dresden - 3 (BWR)*	X	X	X	X	X		X	X	X
Farley - 1 (PWR)*	X	X	X	X	X		X	X	X
Farley - 2 (PWR)*	X	X	X	X	X		X	X	X
Fermi - 2 (BWR)	X	X	X	X	X		X	X	X
Fitzpatrick (BWR)*	X	X	X	X	X		X	X	X
Fort Calhoun (PWR)*	X	X					X	X	
Ginno (PWR)*	X						X		
Grand Gulf - 1 (BWR)*	X	X	X	X	X		X	X	X
Grand Gulf - 2 (BWR)	X	X	X	X	X		X	X	X
Haddam Neck (PWR)*	X	X	X		X		X	X	
Harris - 1 (PWR)	X	X	X	X			X	X	X
Hatch - 1 (BWR)*	X	X	X	X			X	X	X
Hatch - 2 (BWR)*	X	X	X	X			X	X	X
Hope Creek (BWR)	X	X	X		X	X	X	X	
Humboldt Bay (BWR)	X	X	X	X			X	X	
Indian Point - 1 (PWR)	X	X			X		X		

TABLE 1.1. (Cont'd.)

PLANT NAME (b)	IN-PLANT CAPABILITIES (c)			CURRENT CAPABILITIES (g)					
	LWT	ONT	RAIL	RAIL (d) ACCESS	BARGE (e) FEASIBILITY	INTERMODAL (f) FEASIBILITY	LWT	ONT	RAIL
Indian Point - 2 (PWR)	X				X		X		
Indian Point - 3 (PWR)	X	X	X		X		X		
Kewaunee (PWR)*	X	X	X		X	X	X	X	
La Crosse (BWR)*	X			X	X		X		
La Salle - 1 (BWR)*	X	X	X	X	X		X	X	X
La Salle - 2 (BWR)*	X	X	X	X	X		X	X	X
Limerick - 1 (BWR)	X	X	X	X			X	X	X
Limerick - 2 (BWR)	X	X	X	X			X	X	X
Maine Yankee (PWR)	X	X		X	X		X	X	X
Marble Hill - 1 (PWR)	X		X	X			X		X
Marble Hill - 2 (PWR)	X		X	X			X		X
McGuire - 1 (PWR)*	X	X	X	X			X	X	X
McGuire - 2 (PWR)*	X	X	X	X			X	X	X
Millstone - 1 (BWR)*	X	X	X	X	X		X	X	X
Millstone - 2 (PWR)*	X	X	X	X	X		X	X	X
Millstone - 3 (PWR)	X	X	X	X	X		X	X	X
Monticello (BWR)*	X	X	X	X			X	X	X
Nine Mile Point - 1 (BWR)*	X	X	X	X	X		X	X	X
Nine Mile Point - 2 (BWR)*	X	X	X	X	X		X	X	X
North Anna - 1 (PWR)*	X	X	X	X			X	X	X
North Anna - 2 (PWR)*	X	X	X	X			X	X	X
Oconee - 1 (PWR)*	X	X	X			X	X		
Oconee - 2 (PWR)*	X	X	X			X	X		
Oconee - 3 (PWR)*	X	X	X			X	X	X	
Oyster Creek (BWR)*	X	X	X		X	X	X	X	
Palisades (PWR)*	X				X		X		
Palo Verde - 1 (PWR)	X	X	X	X			X	X	X
Palo Verde - 2 (PWR)	X	X	X	X			X	X	X
Palo Verde - 3 (PWR)	X	X	X	X			X	X	X
Peach Bottom - 2 (BWR)*	X	X	X			X	X	X	
Peach Bottom - 3 (BWR)*	X	X	X			X	X	X	
Perry - 1 (BWR)	X	X	X	X	X		X	X	X
Perry - 2 (BWR)	X	X	X	X	X		X	X	X
Pilgrim - 1 (BWR)*	X	X			X		X	X	
Point Beach - 1 (PWR)*	X	X	X		X	X	X		
Point Beach - 2 (PWR)*	X	X	X		X	X	X		
Prairie Island - 1 (PWR)*	X	X	X	X	X		X	X	X
Prairie Island - 2 (PWR)*	X	X	X	X	X		X	X	X
Quad Cities - 1 (BWR)*	X	X	X	X			X	X	X
Quad Cities - 2 (BWR)*	X	X	X	X			X	X	X
Rancho Seco (PWR)*	X	X	X	X			X	X	X
River Bend - 1 (BWR)	X	X	X	X	X		X	X	X
Robinson - 2 (BWR)*	X	X	X	X			X	X	X
Salem - 1 (PWR)*	X	X	X		X	X	X	X	
Salem - 2 (PWR)*	X	X	X		X	X	X	X	
San Onofre - 1 (PWR)*	X	X	X			X	X	X	
San Onofre - 2 (PWR)*	X	X	X			X	X	X	
San Onofre - 3 (PWR)*	X	X	X			X	X	X	
Seabrook - 1 (PWR)	X	X	X	X			X	X	X
Seabrook - 2 (PWR)	X	X	X	X			X	X	X

TABLE 1.1. (Cont'd)

PLANT NAME ^(b)	IN-PLANT CAPABILITIES ^(c)			CURRENT CAPABILITIES ^(g)		
	LWT	OWT	RAIL	RAIL ^(d) ACCESS	BARGE ^(e) FEASIBILITY	INTERMODAL ^(f) FEASIBILITY
Sequoyah - 1 (PWR)*	X	X	X	X	X	
Sequoyah - 2 (PWR)*	X	X	X	X	X	
Shoreham (BWR)	X				X	
South Texas - 1 (PWR)	X	X	X	X		
South Texas - 2 (PWR)	X	X	X	X		
St. Lucie - 1 (PWR)*	X	X	X		X	X
St. Lucie - 2 (PWR)*	X	X	X		X	X
Summer (PWR)	X	X	X	X		
Surry - 1 (PWR)*	X	X	X		X	X
Surry - 2 (PWR)*	X	X	X		X	X
Susquehanna - 1 (BWR)*	X	X	X	X		
Susquehanna - 2 (BWR)	X	X	X	X		
Three Mile Island - 1 (PWR)	X	X	X	X		
Three Mile Island - 2 (PWR)	X	X	X	X		
Trojan (PWR)*	X	X	X		X	
Turkey Point - 3 (PWR)*	X	X	X		X	X
Turkey Point - 4 (PWR)*	X	X	X		X	X
Vermont Yankee (BWR)*	X	X	X	X		
Vogtle - 1 (PWR)	X	X	X	X	X	
Vogtle - 2 (PWR)	X	X	X	X	X	
WNP - 1 (PWR)	X	X	X	X	X	
WNP - 2 (BWR)*	X	X	X		X	X
WNP - 3 (PWR)	X	X	X	X	X	
Waterford - 3 (PWR)	X	X	X	X		
Watts Bar - 1 (PWR)	X	X	X	X	X	
Watts Bar - 2 (PWR)	X	X	X	X	X	
Wolf Creek (PWR)	X	X	X	X		
Yankee (PWR)*	X					
Zion - 1 (PWR)*	X	X	X	X	X	
Zion - 2 (PWR)*	X	X	X	X	X	
TOTALS						
PWR's	86	79	79	54	47	22
BWR's	44	41	39	34	26	9
ALL PLANTS	130	120	118	88	73	31

(a) LWT = Legal-weight truck; OWT = Overweight truck. See glossary for definitions of terms.

(b) Asterisk (*) denotes operating plants.

(c) "X" indicates in-plant handling conditions are such that casks of specified transport modes (LWT, OWT, or rail) could be handled. Technical specifications are not considered; i.e., only the plants physical capabilities, as reported by utilities were considered.

(d) "X" indicates servicable rail spur extends into cask loading facilities.

(e) "X" indicates plant is located on navigable waterway.

(f) Refers to the potential capability of loading a large rail or OWT cask at a plant that does not have rail access and then shipping the loaded cask by a short-distance heavy-haul truck mode to an off-site rail siding. Intermodal feasibility is not indicated for plants with rail access.

(g) "X" indicates the cask transport modes that can currently be received and loaded; single mode shipments are considered. Technical specification limitations, if applicable, are also considered.

of barge and intermodal shipping, and current capabilities. These terms were defined in the glossary. In-plant capabilities represent the maximum size of shipping cask that could be handled by each plant's cask handling systems. Rail access (rail access was defined as a serviceable rail spur that extends into the cask loading facilities), technical specification limitations, and derated crane capacities were neglected. A utility's capability to place loaded spent fuel shipping casks onto a barge is based to a large extent on whether the plant is located on a navigable waterway. The column labeled "Current Capabilities" represents an assessment of which types of casks can be received and handled at each plant based on current data. This is different than the "In-plant Capabilities" column because the rail access information, technical specification limitations, and derated crane capacities are considered. Intermodal shipping refers to loading a rail cask onto a special truck and transporting it short distances under a special permit to a location where it can be transferred onto a railcar or barge. Intermodal shipments using the larger rail casks are judged to be feasible if the in-plant conditions are such that rail casks can be handled but no rail access is provided. Appendix A shows the distance to the nearest rail siding for plants where no direct rail access exists. An overall summary of the in-plant and current cask handling capability evaluations is presented in Table 1.2. These results are discussed briefly below.

TABLE 1.2. Summary of In-plant and Current Cask Handling Capabilities
Percentage of Plants Capable of Handling
Each Type of Cask(a)

<u>Type of Plant</u>	<u>In-Plant Capabilities</u>			<u>Current Capabilities</u>		
	<u>LWT</u>	<u>OWT</u>	<u>Rail</u>	<u>LWT</u>	<u>OWT</u>	<u>Rail</u>
PWR	100	92	92	100	79	60
BWR	100	93	89	100	93	70
-----	---	---	---	---	---	---
All Plants	100	92	91	100	84	64

(a) LWT = legal-weight truck; OWT = overweight truck. See Table 1.1 for reactor-by-reactor listing of cask handling capabilities.

Summary of In-Plant Capabilities

As shown in Tables 1.1 and 1.2, rail cask handling capabilities (in-plant) exist at 118 out of 130 reactors (91%). Of the 86 pressurized water reactors (PWRs) and 44 boiling water reactors (BWRs), 79 (92%) and 39 (89%), respectively, could handle rail casks. Only seven PWR and five BWR reactors (9% of all plants) would be restricted to the use of truck casks (either LWT or OWT) based on the in-plant cask handling capabilities. As shown in Table 1.1, most of the plants (88 out of 130 or 68%) are currently provided with rail access. This includes 63% of the PWRs and 77% of the BWRs. Barge shipments were determined to be feasible for a total of 73 plants which represents about 56% of the plants considered.

Summary of Current Capabilities

Table 1.1 (current capabilities) shows that 83 plants were determined to be capable of receiving and handling rail casks. This represents 64% of all plants (see Table 1.2). Of the 86 PWRs, 52 (60%) could ship spent fuel today using rail casks. Of the 44 BWRs, 31 were determined to be capable of receiving and handling rail casks. This represents about 70% of the BWRs. As shown in Table 1.1, 47 plants were determined to be limited at this time to truck shipments. Of those 47 plants that are limited to truck shipping, 21 are restricted to using LWT casks, including eighteen PWR and three BWR reactors. The remaining 26 plants could potentially use OWT casks.

Modal Fractions

A final result of this evaluation concerns calculation of appropriate modal fractions. The modal fractions were calculated based on the inventory of spent nuclear fuel that is projected to have been discharged from commercial reactors in 1998 (Heeb et al. 1985). It was determined that a total of 38,900 MTU of

spent fuel will have accumulated at the reactors listed in Table 1.1 by 1998 (24,400 MTU of PWR spent fuel and 14,500 MTU of BWR spent fuel) based on the DOE Energy Information Administration's (EIA's) middle-case projection of installed capacity and energy generation. The percentage of spent fuel that could potentially be shipped by rail was determined to be 93% if the maximum in-plant cask handling capabilities are assumed. If current capabilities are considered, the rail fraction is reduced to 62%. However, most of this difference (which represents about 12,200 MTU of spent fuel) could be transported in rail casks using heavy-haul truck/rail intermodal shipments (see glossary for definition).

Barge feasibility exists at 73 plants. Of these 73 plants, 64 are capable of handling rail casks based on their in-plant capabilities. These 64 plants (43 PWR and 21 BWR reactors) will have accumulated a total of about 20,600 MTU of spent fuel by 1998 (12,900 MTU of PWR and 7,700 MTU of BWR fuel). Thus, a total of 53% of the spent fuel accumulated by 1998 could potentially be shipped via barge in rail casks.

2.0 OBJECTIVES, APPROACH, AND STUDY BASES

This section contains brief descriptions of the study objectives, approach, and bases. Any assumptions made to facilitate the analyses are stated in the report.

2.1 OBJECTIVES

The principal objectives of this evaluation were to 1) develop information on spent fuel shipping capabilities at U.S. nuclear power plants and 2) to define modal fractions for a repository or MRS facility that will receive spent nuclear fuel from commercial nuclear power stations. A data base of spent fuel shipping cask handling parameters for each commercial nuclear power plant was developed. The information in the data base was derived by collecting, verifying, and analyzing data that is relevant to light water reactors (LWRs) that are either operating, shutdown, or under construction. The data base contains information about several reactors whose construction was subsequently cancelled. The Fort St. Vrain plant was not included because it is not an LWR. A study similar to this one was performed under the Commercial Spent Fuel Management (CSFM) Program but was limited to 27 selected LWRs that utilities claim will have near-term spent fuel storage shortages (Konczek and Daling 1984). Information collected in the CSFM study was used in this evaluation.

The assessment that was performed for each reactor included an evaluation of the in-plant spent fuel shipping cask handling facilities (such as the cask loading pool, cask handling crane, and the physical dimensions of entries into the spent fuel storage area), as well as access routes (roadways and rail spurs) onto the reactor site and into the cask handling area. An example of the latter might be a reactor that has the physical capabilities to lift and handle a rail cask, but it is not provided with a rail spur that extends into the cask handling facility. Thus, the scope of this evaluation includes both in-plant cask handling capabilities as well as the potential of delivering a cask to the facility. Questions that were used to obtain the desired information are listed below.

1. What are the capacities of the cask handling crane and auxiliary hook (if any) ?
2. Are there floor loading limits that could preclude setting down a shipping cask weighing 80 tons ? 100 tons ?
3. Does reactor have direct rail access ? Name of servicing railroad ? If no rail service is provided, what is approximate distance to nearest rail point ?
4. Does the rail spur extend into the cask loading bay ?
5. Are there any weight or length limitations on the rail spur serving the site ?
6. Are there any weight or length limitations on the road(s) serving the site (e.g., bridge restrictions) ?
7. Is the reactor located on a navigable waterway ?
8. What is the distance from the operating deck to the bottom of the crane hoist when the hoist is at its uppermost position ?
9. What is the distance from the bottom of the cask loading pool to the operating deck ?
10. What are the usable transverse dimensions of the cask loading pool ? Breadth, width ?
11. Are there any other conditions that would impede or limit cask handling (e.g., technical specifications, operating procedures, obstructions, sizes of doorways, protruding equipment, etc) ?
13. Have any spent fuel shipments been completed ? Which cask(s) were used ?

2.2 EVALUATION APPROACH

A three phase approach was used. Phase 1 consisted of a review and tabulation of existing data. PNL maintains a spent fuel data base, sponsored by the CSFM Program, that includes information from Utility Spent Fuel Data Verification Form (see Glossary) that utilities completed annually in the past(a). Responses to the 1983 version of the form, which included some of

(a) Starting in 1985, this information will be formally gathered by the DOE Energy Information Administration (EIA).

the questions listed above, was used as the initial source of information. Information was also collected from the open literature, including plant-specific Safety Analysis Reports (SARs). The next step was to inventory and tabulate the data for each reactor. The inventory was conducted to identify missing data.

The second phase of this evaluation consisted of verifying the data contained on the forms and collecting missing information. Efforts during this phase focused primarily on tabulating and performing quality assurance (QA) checks and verifications of the accumulated cask handling data. This effort involved making telephone contacts with utility personnel that were knowledgeable about cask handling capabilities at their plants. A form was developed to record the data collected during these telephone conversations. The end-product of this phase consisted primarily of a directory of cask handling capabilities and limitations at each reactor. This "facilities directory" is presented in Appendix A.

Phase 3 of this evaluation involved an assessment of each reactor's capability to handle three generic sizes of spent fuel shipping casks: legal-weight truck (LWT), overweight truck (OWT), and rail (see Glossary). Physical dimensions of the existing spent fuel shipping casks are presented in Appendix B. The physical dimensions of the three types of shipping casks were compared with the handling capabilities and limitations of each reactor to estimate which types of shipping casks can be handled at each plant. It should be noted that there are two sizes of existing spent fuel rail casks; 1) a light rail cask with a loaded weight of about 73 Mg (80 tons), and 2) a heavy rail cask that weighs approximately 88 Mg (97 tons) when loaded (see Appendix B). Plants that are capable of handling the light rail cask but not the heavy rail cask were noted. The facilities directory (see Appendix A) contains the results of these assessments.

The results of the cask handling capabilities assessments are based on the best available data. A detailed analysis of each plant would be needed to ascertain their actual cask handling capabilities. In many cases, the utilities have never shipped spent fuel and are not planning shipments in the near future. In these cases, the actual shipping cask handling capabilities are uncertain because the utility may not have qualified the cask handling crane in accordance with the required control of heavy loads analyses (NRC 1979, NRC 1980, and NRC 1981a). Therefore, the results of this evaluation are subject to change as more and more utilities are faced with the need to ship spent fuel.

Modal fractions are the fractions of spent fuel that could be transported by LWT, OWT, or rail casks. Modal fractions were calculated by adding together the amount of spent fuel that could potentially be shipped via each type of cask and then dividing by the total inventory of spent fuel at all reactors. The spent fuel inventory at each reactor in the year 1998, which is the year that the first repository is scheduled to begin receiving spent fuel, was used to calculate modal fractions. It is assumed that all reactors which can ship by rail will do so; therefore, the rail modal fraction represents an upper limit. The LWT and OWT modal fractions represent only the amount of spent fuel that is required to be shipped by these modes, based on cask handling limitations at the reactors. Thus, LWT and OWT modal fractions represent lower limits. This was done because plants that are capable of handling rail casks are also capable of handling LWT and OWT casks but the converse is not necessarily true. The actual modal fractions will depend upon the types of shipping casks that are selected by the reactors that have rail capabilities. Other considerations, which were not evaluated here, include economics, radiation exposure reduction, and carrier willingness to transport spent fuel.

2.3 BASES

The major bases of this cask handling capabilities assessment are listed below.

- Results are based on: 1) plant-specific responses provided by utilities via DOE's 1983 Utility Spent Fuel Data Verification Form; 2) follow-up contacts with utility personnel, and 3) applicable information contained in the open literature.
- Only the current cask handling capabilities of LWRs that are either operating, shutdown, or under construction were evaluated (see Appendix A for details).
- The existing commercial spent fuel shipping casks were used as the bases for the evaluations.
- Calculation of modal fractions were based on the projected inventories of spent fuel at reactors in the year 1998. Reactor-by-reactor inventories were obtained from Heeb et al. (1985) which consists of utility-supplied data that has been modified to match the DOE-EIA projections for installed capacity and nuclear energy generation. The EIA middle-case projections were used. These projections were adjusted to subtract the spent fuel inventories at General Electric Co.'s Morris, Illinois facility and at Nuclear Fuel Services, Inc.'s West Valley, New York facility because of uncertainties in the final disposition of this fuel. Adjustments were also made to remove from the inventory the projected quantities of spent fuel from recently cancelled plants which were not included in the evaluation.

The cask handling parameter data was examined to determine the types of shipping casks that could be received and handled at each plant. The determinations of each plant's cask handling capabilities were based on the criteria described below:

- In-plant cask handling capabilities represent the types of shipping casks that could be handled given the physical dimensions and original lifting capabilities of each plant's cask handling systems. Technical specification limitations and derated crane capabilities were not considered in this case because some plants have not performed the analyses that are needed to determine their full capabilities. For example, some utilities have performed analyses only for a specific shipping cask. As a

result, the utilities may not know their full range of cask usage alternatives. Thus, in-plant capabilities represent the largest type of shipping cask that could be handled given the original capabilities of the plant.

- Rail access refers to the accessibility of the spent fuel handling facilities to railroad service. The plants were judged to have rail access if a serviceable rail spur extended into cask loading bay. Plants that were originally provided with a rail spur that was subsequently abandoned or removed were judged not to have rail access.
- The feasibility of barge transport is based primarily on whether or not a plant is located on a navigable waterway. The existence of barge docking facilities was noted in the facilities directory but was not required for a plant to be judged to have a barge-transport capability. Size restrictions of the barge facilities are also in effect but these data were not available. Plants that have barge-transport feasibility and in-plant rail cask handling capabilities were judged to have the potential for barge/rail intermodal shipments (see Glossary). Such plants would also be capable of barge/OWT intermodal shipments.
- Heavy-haul truck/rail intermodal feasibility (see Glossary) was evaluated for those reactors that did not have rail access. A plant was judged to have heavy-haul truck/rail intermodal capability if rail casks could be handled within the plant but could not be brought onto the site by rail. Such plants would also be capable of intermodal rail shipments that use OWT casks.
- The final evaluation involved determining the current cask handling capabilities and limitations of each plant. This determination was based on the best available cask handling data and included the rail access information, technical specification limitations, and derated crane capacities (if available). Therefore, the results of this evaluation provide a best estimate of the types of shipping casks that could be used at each plant if it were to ship spent fuel today.

3.0 RESULTS OF THE CASK HANDLING CAPABILITY ASSESSMENT

The results of this evaluation included: 1) a directory of cask handling parameter data for each nuclear power plant; 2) the results of the evaluation of each plant's cask handling capabilities and limitations; and 3) an estimate of the modal fractions for which repository and MRS facility receiving and handling systems should be designed. The facilities directory is presented in Appendix A. The rest of this section presents the results of the cask handling capability evaluations (Section 3.1) and the modal fraction estimates (Section 3.2).

3.1 SHIPPING CASK HANDLING CAPABILITIES

The results of the evaluation of each plant's cask handling capabilities were based on the criteria discussed in Section 2.3. Both in-plant cask handling capabilities and limitations as well as accessibility to highway, rail, and water modes of transport were considered. The evaluations were based on each plant's capability to receive and load existing spent fuel shipping casks (see Appendix B). The results of the evaluations for each commercial nuclear power plant are described in Table 1.1.

The overall results of the cask handling capability assessments are presented in Table 3.1. A total of 130 plants were examined in this study; 86 pressurized water reactors (PWRs) and 44 boiling water reactors (BWRs). None of these plants reported they could not receive and handle a LWT cask. According to the in-plant cask handling parameter data (i.e., neglecting technical specification limitations and derated crane capacities), ten plants could not handle OWT casks. Of these ten, seven were PWR and three were BWR reactors. Rail cask handling capabilities existed at 118 (91%) of the plants. Of the 86 PWRs and 44 BWRs, 79 (92%) and 39 (89%), respectively, could potentially handle rail casks. A total of 88 plants (68%) are currently provided with rail access. A list of the plants that are not provided with rail access is presented in Table 3.2. As shown, 32 of the 42 plants (76%) without rail access could

TABLE 3.1. Overall Results of Cask Handling Capability Assessments^(a)

<u>Plant Type</u>	<u>PWR</u>	<u>BWR</u>	<u>All Plants</u>
Number of Plants	86	44	130
In-Plant Capabilities			
LWT	86	44	130
OWT	79	41	120
Rail	79	39	118
Rail Access	54	34	88
Barge Feasibility	47	26	73
Intermodal Feasibility			
Barge/Rail	43	21	64
Heavy-haul Truck/Rail	24	9	33
Current Capabilities			
LWT	86	44	130
OWT	68	41	109
Rail	52	31	83

(a) See Table 1.1 for a plant-by-plant listing of cask handling capabilities.
LWT = legal-weight truck, OWT = overweight truck. See glossary for definitions of terms.

TABLE 3.2. List of Plants That are Not Provided With Rail Access

Plants Without Rail Access (a)

• Browns Ferry 1,2,3	Palisades ^(b)
• Callaway ^(b)	• Peach Bottom 2,3 ^(b)
• Calvert Cliffs 1,2	Pilgrim
• Crystal River 3 ^(b) , ^(c)	• Point Beach 1,2 ^(b)
• Diablo Canyon 1,2	• Salem 1,2
Fort Calhoun	• San Onofre 1,2,3 ^(b)
Ginna	Shoreham
• Haddam Neck	• St. Lucie 1,2
• Hope Creek	• Surry 1,2
Indian Point 1,2,3	• Trojan ^(b)
• Kewaunee	• Turkey Point 3,4
• Oconee 1,2,3	• WNP-2 ^(c)
• Oyster Creek ^(b)	Yankee ^(b)

Total: 42 Plants (32 PWRs and 10 BWRs)

Plants With Rail Access -- Condition of Track Unknown (d)

Fitzpatrick	LaCrosse
Humboldt Bay	Maine Yankee

Total: 4 Plants (1 PWR and 3 BWRs)

- (a) Plants capable of heavy-haul truck/rail intermodal shipments are denoted by a "o".
- (b) These plants were originally provided with a rail spur which has subsequently been abandoned or is otherwise unsuitable.
- (c) Crystal River-3 and WNP-2 have a railspur onsite but the spur does not extend into the cask handling facilities.
- (d) Although the condition of the railspur is unknown, these plants were judged to have rail access.

potentially use the larger rail casks in a heavy-haul truck/rail intermodal shipment configuration. Plants that are located on navigable waterways (i.e., plants that have potential barge-shipment capabilities) are listed in Table 3.3. As shown, 73 plants (56%) could potentially ship by barge. Of these 73 plants, 64 could potentially handle rail casks and thus are potentially capable of using a barge/rail intermodal shipment configuration.

Under the "Current Capabilities" section of Table 3.1, all known current restrictions of each plant's cask handling systems (e.g., derated crane capacities, technical specification limitations, etc.) as well as rail access were considered in the evaluations. These columns represent the types of shipping casks that could be used if the utility was to ship spent fuel today. As shown, a total of 83 plants could potentially receive and handle rail casks (52 PWRs and 31 BWRs). This represents 64% of all plants (60% of the PWRs and 70% of the BWRs) examined. The predominant reason that plants do not have rail cask receiving and handling capabilities is lack of rail access. Lack of rail access is shown for 32 PWR (37%) and 10 BWR reactors (23%). This illustrates that a higher percentage of the BWRs are provided with rail access than PWRs. Other limitations are due to cask handling crane capacities and cask loading pool dimensions.

As shown in Table 3.1, ten plants are restricted to LWT casks based on their in-plant capabilities and 21 are restricted to LWT based on their current capabilities. A list of these plants and the reasons for their limitations are presented in Table 3.4. As shown, the primary reason (besides lack of rail access) for a plant to be limited to LWT casks is a lack of adequate crane capacity. Of the 21 plants limited to LWT shipments based on current capabilities, 15 are restricted because the lifting capabilities of their cask handling cranes (including consideration of technical specifications) are not large enough to lift a rail cask. Seven plants are restricted to LWT casks because the dimensions of their cask loading pool are too small to accommodate a rail cask. Of these seven plants, three are also restricted because of the low capacity of their cask handling cranes. One utility indicated their plants have length restrictions within the plant that preclude using anything but LWT casks.

TABLE 3.3. List of Plants Potentially Capable of Barge/Rail Intermodal Shipments(a)

Beaver Valley 1,2	Fitzpatrick	Prairie Island 1,2
Bellefonte 1,2	Grand Gulf 1,2	River Bend
Browns Ferry 1,2,3	Haddam Neck	Salem 1,2
Callaway 1	Hope Creek	Sequoyah 1,2
Calvert Cliffs 1,2	Kewaunee	St. Lucie 1,2
Cooper	La Salle 1,2	Surry 1,2
Crystal River 3	Maine Yankee	Trojan
D.C. Cook 1,2	Millstone 1,2,3	Turkey Pt. 3,4
Davis Besse	Nine Mile Pt. 1,2	Vogtle 1,2
Diablo Canyon 1,2	Oyster Creek	WNP 1,2,3
Dresden 2,3	Perry 1,2	Watts Bar 1,2
Farley 1,2	Point Beach 1,2	Zion 1,2
Fermi 2		

- (a) These plants are capable of handling rail casks based on in-plant capabilities and are also located on a navigable waterway.

TABLE 3.4. List of Reactors That are Restricted to Legal-weight Truck Shipments

<u>In-Plant Capabilities</u>	<u>Current Capabilities</u>
Big Rock Point(a)(b)	Big Rock Point(a)(b)
Ginna(a)	Calvert Cliffs 1,2(a)
Indian Pt. 2,3(a)	Ginna(a)
LaCrosse(b)	Indian Pt. 1,2,3(a)
Marble Hill 1,2(b)(d)	LaCrosse(b)
Palisades(a)(b)	Marble Hill 1,2(b)(d)
Shoreham(b)	Oconee 1,2(c)
Yankee(a)(b)	Palisades(a)(b)
	Point Beach 1,2(a)
	Shoreham(b)
	St. Lucie 1,2(a)
	Turkey Pt. 3,4(a)
	Yankee(a)(b)
Total: 10 Plants	Total: 21 Plants

- (a) Limitations are due to inadequate cask handling crane capability.
 (b) Limitations are due to inadequate cask loading pool dimensions.
 (c) Limitations are due to lack of adequate clearances in airlocks, doorways, etc.
 (d) Marble Hill 1 and 2 can handle small rail casks but not OWT casks because cask loading pool dimensions are too small to place the larger diameter OWT casks in it.

The data in Appendix A indicates that only eight plants currently have technical specification limitations that restrict them to using LWT casks; Calvert Cliffs 1 and 2, St. Lucie 1 and 2, Turkey Pt. 3 and 4, and Point Beach 1 and 2. As discussed previously, these plants may have these restrictions only because they performed analyses for a certain type of shipping cask. For example, a utility might have selected a specific type of cask and performed cask drop analyses using only the weights and dimensions of that particular cask. As a result, they are qualified to handle only that specific shipping cask even though they may be capable of handling a larger shipping cask. It should be mentioned that many utilities have not performed spent fuel shipments and will not do so for many years. Consequently, they are not certain as to the derated capacities of their cask handling cranes. The data regarding cask handling crane restrictions for those utilities that have them are shown in the "Comments" sections of Appendix A.

One further result concerns the particular rail cask chosen by a utility. The two existing choices are the NLI-10/24 and the GE IF-300. It was found that since the NLI-10/24 is substantially larger than the IF-300, some plants are not capable of handling the NLI-10/24 but are capable of handling the IF-300. A list of these plants is presented in Table 3.5. As shown, a total of 19 plants are in this category. These limitations are due primarily to the large outside diameter of the NLI-10/24, which restricts it from being placed in many cask loading pools. There are other plants that are provided with adequate lifting capabilities to handle the IF-300 but not the NLI-10/24. The results presented previously in Table 1.1 indicate whether or not each plant can handle the IF-300. Because of this, it should be recognized that some plants listed in Table 1.1 are shown as having rail cask handling capabilities but they are not capable of handling the NLI-10/24 rail cask.

3.2 MODAL FRACTION ESTIMATES

This section presents the estimated modal fractions that the designers of repository and MRS facilities should consider. The following results are based on spent fuel discharge data for each commercial nuclear plant that was reported

TABLE 3.5. List of Plants That Could Handle the IF-300 Rail Cask But Not the NL1-10/24.

<u>Plant Name</u>	<u>Reason for Limitation</u>
Arnold(a)	Crane capacity
Cooper	Crane capacity
Diablo Canyon 1,2(a)	Clearances on operating floor
Fort Calhoun(a)	Pool dimensions, crane capacity
Hope Creek(a)	Crane height
Marble Hill 1,2	Pool dimensions, crane capacity
Millstone 1	Pool dimensions
Monticello	Pool dimensions, crane capacity
Oconee 1,2,3(a)	Pool dimensions
Oyster Creek(a)	Pool dimensions
Point Beach 1,2(a)	Pool dimensions
Three Mile Island 1,2	Pool dimensions
Vermont Yankee	Pool dimensions

(a) These plants are not provided with rail access. Thus, these plants could not handle either the IF-300 or NL1-10/24 based on current capabilities.

by Heeb et al. (1985). This report contains utility-supplied spent fuel discharge data for each commercial nuclear power plant that has been modified to match the DOE-EIA projections for installed capacity and energy generation under the EIA middle-case projections. The results of the modal fraction estimates were based on cumulative spent fuel discharges as of 1998, when the first repository is planned to begin receiving spent fuel. Cumulative discharges, which total 38,900 MTU of spent fuel in 1998, represent the inventories of spent fuel in each plant's spent fuel storage facilities. The quantities of spent fuel that are currently at General Electric Co.'s Morris, Illinois, facility and Nuclear Fuel Services Co.'s West Valley, New York facility were not included. In addition, Heeb et al. (1985) contained spent fuel inventory data for some recently cancelled plants (Hartsville A1 and A2, Midland 1 and 2, and Yellow Creek 1 and 2) which were not included in this evaluation. As a result, the total spent fuel inventory used in this evaluation is slightly smaller than the inventory presented by Heeb et al. (1985).

Modal fractions were estimated by adding together the cumulative spent fuel discharges (given in units of MTU) for plants that could receive and handle each type of shipping cask. Separate spent fuel inventories were calculated for reactors that could potentially receive and handle rail casks (these plants would also be capable of handling OWT and LWT casks), OWT casks (which also includes LWT cask handling capabilities), and LWT casks only. The rail modal fraction is an estimate of the largest fraction of spent fuel that could potentially be shipped by rail, whereas the LWT and OWT modal fractions represent lower limits. This is because it was assumed that all utilities will use the largest cask that their plants are capable of handling (see Section 2.2.). The results of these calculations are presented in Table 3.6.

TABLE 3.6 . Design-Basis Modal Fractions for Repository and MRS Facilities

	Modal Fractions(a),(b)					
	<u>In-Plant Capabilities</u>			<u>Current Capabilities</u>		
	<u>LWT</u>	<u>OWT</u>	<u>Rail</u>	<u>LWT</u>	<u>OWT</u>	<u>Rail</u>
PWRs	0.06	0.01	0.93	0.21	0.21	0.58
BWRs	0.02	0.03	0.95	0.02	0.29	0.69
<hr/> All Plants	<hr/> 0.05	<hr/> 0.02	<hr/> 0.93	<hr/> 0.14	<hr/> 0.24	<hr/> 0.62

(a) Spent fuel inventories in 1998 at the plants considered total approximately 38,900 MTU. Of this amount, 24,400 MTU will be PWR spent fuel and 14,500 will be from BWRs. The values in the table represent the fractions of these inventories that could potentially be transported to MRS or repository facilities using LWT, OWT, and rail cask systems.

(b) LWT = Legal weight truck; OWT = Overweight truck. See glossary.

Calculations revealed that a total of approximately 38,900 MTU of spent fuel will have been discharged by 1998 from the commercial nuclear power plants considered. Of this amount, 36,300 MTU, or about 93% could potentially be shipped by rail assuming the in-plant cask handling capabilities shown in Table 3.1. This means that only 7% of the spent fuel (about 2,600 MTU) would be required to be shipped by truck (OWT and LWT).

When current capabilities and limitations are considered, the amount of spent fuel that could potentially be shipped by rail is reduced to about 24,100 MTU which represents about 62% of the spent fuel inventory in 1998. The remaining 38% (or 14,800 MTU) would have to be shipped by LWT or OWT. This is about a 30% reduction of the quantity of spent fuel that could potentially be transported in rail casks if in-plant capabilities are considered. This 30% reduction represents approximately 12,200 MTU of spent fuel. The additional 12,200 MTU could be shipped by truck. Alternatively, since the primary difference between in-plant and current cask handling capabilities was determined to be a lack of rail access, the bulk of this difference could be transported using intermodal shipments. In other words, a large percentage of the 12,200 MTU difference could potentially be shipped in rail casks, although the plants would have to use heavy-haul truck shipments to move the rail casks to and from the plants.

The overall result is that the repository and MRS facility designs should be based on modal fractions of approximately 62% to 93% rail shipping and 7% to 38% truck (i.e., LWT plus OWT) shipping. This is a best estimate of the range of modal fractions that are possible when assuming that those reactors that can ship by rail will do so. The minimum amount of spent fuel that must be transported by LWT was determined to be about 1,900 MTU (5%) if in-plant handling capabilities are assumed. This value increases to about 5,500 MTU (14%) if the current capabilities are considered. It should be mentioned that these modal fractions are based only on cask handling capabilities. The actual modal fractions may also be based on other factors that were not evaluated in this report (e.g., economics, radiation exposures, rail carrier willingness, etc.).

A final result concerns the potential capabilities of commercial LWRs to transport spent fuel offsite directly by barge. It was determined that 73 plants could potentially ship using this transport mode based on their location on a navigable waterway. Of these 73 plants, 64 could use rail casks if their maximum in-plant capabilities are assumed. The inventory of spent fuel at these 68 plants is projected to total approximately 20,600 MTU in 1998 -- 12,900 MTU of PWR fuel and 7,700 MTU of BWR fuel. This inventory represents about 53% of the total inventory of spent fuel that is projected to have accumulated by 1998. Thus, a significant portion of the spent fuel could potentially be shipped to MRS or repository facilities via barge.

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APPENDIX A

DIRECTORY OF SPENT FUEL SHIPPING CASK HANDLING
CAPABILITIES OF COMMERCIAL NUCLEAR POWER PLANTS

APPENDIX A

DIRECTORY OF SPENT FUEL SHIPPING CASK HANDLING CAPABILITIES OF COMMERCIAL NUCLEAR POWER PLANTS

This appendix presents a data base of spent fuel shipping cask handling information for commercial nuclear power plants. One page is presented with each plant's shipping cask handling data. The data are presented in alphabetical order according to the plant name. The cask handling information presented for each plant includes the types of casks that have been used in the past, preferred casks, sizes and capacities of cask handling equipment and facilities, rail access information, and barge transport feasibility. Also shown are the results of the assessments of each plant's near-term cask handling capability (i.e., assuming that current restrictions and limitations will not be removed).

In the following appendix, the term "Pool" is used to describe two different items. "Pool" refers to the spent fuel storage pool when the parameter "Share Pool" is called out. It refers to the cask loading pool (which may or may not be separated from the spent fuel storage pool) when the parameters "Pool Depth", "Pool Width", and "Pool Length" are called out.

PLANT NAME: A.N.O.-1
UTILITY: ARKANSAS POWER AND LIGHT COMPANY
NEAREST TOWN: RUSSELLVILLE, ARK
NRC DOCKET NUMBER: 50-313
REACTOR TYPE: PWR
RATING:(a) 836 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NOT YET CHOSEN
Cask Experience: NONE
Cask Crane Capacity, tons: 100
Crane Height, ft:(c) 29.0

Pool Depth, ft:(d) 43.0
Pool Width, ft:(d) 9.5
Pool Length, ft:(d) 10.2

COMMENTS: SEE COMMENTS, ANO-2

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MISSOURI PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water:
Barge Feasibility: NO

COMMENTS: SEE COMMENTS, ANO-2

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: A.N.O.-2
UTILITY: ARKANSAS POWER AND LIGHT COMPANY
NEAREST TOWN: RUSSELLVILLE, ARK
NRC DOCKET NUMBER: 50-368
REACTOR TYPE: PWR
RATING:(a) 858 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NOT YET KNOWN
Cask Experience: NONE
Cask Crane Capacity, tons: 100
Crane Height, ft:(c) 29.0

Pool Depth, ft:(d) 43.0
Pool Width, ft:(d) 9.5
Pool Length, ft:(d) 10.2

COMMENTS: ONE POOL IS ON EACH SIDE OF REFUELING FLOOR. HATCH
IS 18' X 12'. HAVEN'T LOOKED INTO CASK TYPES AND
HANDLING YET.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MISSOURI PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water:
Barge Feasibility: NO

COMMENTS: RAILSPUR EXTENDS INTO TRAIN BAY UNDERNEATH REFUELING
FLOOR. LOCATED ON DARDANELLE RESERVOIR OFF THE ARKANSAS
RIVER, BUT DON'T HAVE A DOCK.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: BEAVER VALLEY-1
UTILITY: DUQUESNE LIGHT COMPANY
NEAREST TOWN: SHIPPINGPORT, PA
NRC DOCKET NUMBER: 50-334
REACTOR TYPE: PWR
RATING:(a) 810 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 27.1

Pool Depth, ft:(d) 41.5
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: USE STANDARD 17 X 17 FUEL.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: OHIO RIVER
Barge Feasibility: YES

COMMENTS: HAVE BARGE SLIP, EXPECT THEY WOULD SHIP BY RAIL.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BEAVER VALLEY-2
UTILITY: DUQUESNE LIGHT COMPANY
NEAREST TOWN: SHIPPINGPORT, PA
NRC DOCKET NUMBER: 50-412
REACTOR TYPE: PWR
RATING:(a) 836 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 27.1

Pool Depth, ft:(d) 41.5
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: SEE COMMENTS, BEAVER VALLEY 1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: OHIO RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS, BEAVER VALLEY-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BELLEFONTE-1
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: SCOTTSBORO, ALA
NRC DOCKET NUMBER: 50-438
REACTOR TYPE: PWR
RATING: (a) 1213 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NLI-10/24
Cask Experience:
Cask Crane Capacity, tons: 150
Crane Height, ft: (c) 33

Pool Depth, ft: (d) 43
Pool Width, ft: (d) 12
Pool Length, ft: (d) 12

COMMENTS: FACILITY IS DESIGNED FOR A CASK WEIGHING APPROXIMATELY
100 TONS AND HAVING A CAPACITY OF 10 PWR FUEL ASSEMBLIES.
USABLE DIMENSIONS OF CASK LOADING PIT ARE 18' DEEP,
12'X12'. AN INTERMEDIATE SHELF USED BY THE CASK IS
12' BY 9' AND 17' LONG.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAY SYSTEM
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SEE COMMENTS
Barge Feasibility: YES

COMMENTS: BELLEFONTE PLANS ON SHIPPING BY TRAIN. BARGE IS POSSIBLE
HOWEVER. COOLING WATER IS THE TENNESSEE RIVER/CAUNTERSVILLE
RESERVOIR.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: BELLEFONTE-2
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: SCOTTSBORO, ALA
NRC DOCKET NUMBER: 50-439
REACTOR TYPE: PWR
RATING: (a) 1213 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NLI-10/24
Cask Experience:
Cask Crane Capacity, tons: 150
Crane Height, ft: (c) 33

Pool Depth, ft: (d) 43.
Pool Width, ft: (d) 12.
Pool Length, ft: (d) 12.

COMMENTS: SEE COMMENTS, BELLEFONTE-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAY SYSTEM
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SEE COMMENTS BELLEFONTE-1
Barge Feasibility: YES

COMMENTS: SEE COMMENTS, BELLEFONTE-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BIG ROCK POINT
UTILITY: CONSUMERS POWER COMPANY
NEAREST TOWN: CHARLEVOIX, MICH
NRC DOCKET NUMBER: 50-155
REACTOR TYPE: BWR
RATING:(a) 72 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NFS-M100
Cask Experience: NFS-M100
Cask Crane Capacity, tons: 24
Crane Height, ft:(c) 26.0

Pool Depth, ft:(d) 31.0
Pool Width, ft:(d) 5.0
Pool Length, ft:(d) 7.0

COMMENTS: CRANE CAPACITY OF 75 TONS DERATED TO 24 T AS RESULT
OF DROP ANALYSIS. LENGTH OF CASK LIMITED BY NEED
FOR ADEQUATE(ABOUT 8') WATER COVERAGE AS FUEL IS
INSERTED INTO CASK. MAX LENGTH WITH THIS CRITERIA
PROBABLY NOT GREATER THAN 15'.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CHESAPEAKE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS: RAIL HAS NOT BEEN MAINTAINED IN LAST FEW YEARS. THERE
ARE NO PROVISIONS FOR LOADING ANYTHING VIA LAKE MICHIGAN,
AND TO LOAD BY WATER WOULD BE A VERY MAJOR UNDERTAKING.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well

PLANT NAME: BRAIDWOOD-1
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: BRAIDWOOD, ILL
NRC DOCKET NUMBER: 50-456
REACTOR TYPE: PWR
RATING (a) 1120 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: NFS-4
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 26.7

Pool Depth, ft:(d) 41
Pool Width, ft:(d) 11
Pool Length, ft:(d) 11

COMMENTS: FLOOR LOADING LIMIT IS 500 LB. PER SQ. FT. UNITS
1&2 SHARE POOL, SIZE LIMITATION IS CASK LOADING AREA.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ILLINOIS CENTRAL GULF
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MAN-MADE LAKE
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well

PLANT NAME: BRAIDWOOD-2
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: BRAIDWOOD, ILL
NRC DOCKET NUMBER: 50-457
REACTOR TYPE: PWR
RATING:(a) 1120 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: NFS-4
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 26.7

Pool Depth, ft:(d) 41
Pool Width, ft:(d) 11
Pool Length, ft:(d) 11

COMMENTS: SEE COMMENTS, BRAIDWOOD-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ILLINOIS CENTRAL GULF
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MAN-MADE LAKE
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BROWNS FERRY-1
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: DECATUR, ALA
NRC DOCKET NUMBER: 50-259
REACTOR TYPE: BWR
RATING:(a) 1067 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask:
Cask Experience: NONE
Cask Crane Capacity, tons: 106
Crane Height, ft:(c)

Pool Depth, ft:(d) 39
Pool Width, ft:(d) 8
Pool Length, ft:(d) 8

COMMENTS: 67 TON CASK HAS BEEN ANALYZED FOR USE AT BROWNS FERRY.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: LOUISVILLE AND NASHVILLE
Distance from Rail Spur to Cask Loading Bay: 7 miles
Source of cooling water: TENNESSEE RIVER
Barge Feasibility: YES

COMMENTS: BARGE FACILITY UNDER CONSTRUCTION.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BROWNS FERRY-2
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: DECATUR, ALA
NRC DOCKET NUMBER: 50-260
REACTOR TYPE: BWR
RATING:(a) 1067 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask:
Cask Experience: NONE
Cask Crane Capacity, tons: 106
Crane Height, ft:(c)

Pool Depth, ft:(d) 39
Pool Width, ft:(d) 8
Pool Length, ft:(d) 8

COMMENTS: SEE COMMENTS, BROWNS FERRY-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: LOUISVILLE AND NASHVILLE
Distance from Rail Spur to Cask Loading Bay: 7 miles
Source of cooling water:
Barge Feasibility: YES

COMMENTS: SEE COMMENTS, BROWNS FERRY-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BROWNS FERRY-3
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: DECATUR, ALA
NRC DOCKET NUMBER: 50-296
REACTOR TYPE: BWR
RATING:(a) 1067 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 106
Crane Height, ft:(c)

Pool Depth, ft:(d) 39
Pool Width, ft:(d) 8
Pool Length, ft:(d) 8

COMMENTS: SEE COMMENTS, BROWNS FERRY-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: LOUISVILLE AND NASHVILLE
Distance from Rail Spur to Cask Loading Bay: 7 miles
Source of cooling water:
Barge Feasibility: YES

COMMENTS: SEE COMMENTS, BROWNS FERRY-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BRUNSWICK-1
UTILITY: CAROLINA POWER AND LIGHT CO.
NEAREST TOWN: SOUTHPORT, NC
NRC DOCKET NUMBER: 50-324
REACTOR TYPE: BWR
RATING:(a) 790 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: IF-300
Cask Experience: NAC1NFS4 NL11/2
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.2

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 10.3
Pool Length, ft:(d) 10.3

COMMENTS: REACTOR BUILDING AIRLOCK DIMENSIONS LIMIT RAIL CASK
CAR LENGTH TO 53'8".

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SEABOARD COASTLINE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ATLANTIC OCEAN OUTFALL
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BRUNSWICK-2
UTILITY: CAROLINA POWER AND LIGHT CO.
NEAREST TOWN: SOUTHPORT, NC
NRC DOCKET NUMBER: 50-325
REACTOR TYPE: BWR
RATING:(a) 790 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: IF-300
Cask Experience: NACINFS4 NLI1/2
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.2

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 10.3
Pool Length, ft:(d) 10.3

COMMENTS: REACTOR BUILDING AIRLOCK DIMENSIONS LIMIT RAIL CASK
CAR LENGTH TO 53'8''

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SEABOARD COASTLINE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ATLANTIC OCEAN OUTFALL
Barge Feasibility: NO

COMMENTS: SOUTHPORT, NC LOCATION.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BYRON-1
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: BYRON, ILL
NRC DOCKET NUMBER: 50-454
REACTOR TYPE: PWR
RATING:(a) 1120 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: NFS-4
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c)

Pool Depth, ft:(d) 40
Pool Width, ft:(d) 9
Pool Length, ft:(d) 9

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MILWAUKEE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ROCK RIVER
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: BYRON-2
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: BYRON, ILL
NRC DOCKET NUMBER: 50-455
REACTOR TYPE: PWR
RATING:(a) 1120 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: NFS-4
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c)

Pool Depth, ft:(d) 40
Pool Width, ft:(d) 9
Pool Length, ft:(d) 9

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MILWAUKEE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ROCK RIVER
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: CALLAWAY-1
UTILITY: UNION ELECTRIC COMPANY
NEAREST TOWN: FULTON, MO
NRC DOCKET NUMBER: 50-483
REACTOR TYPE: PWR
RATING:(a) 1166 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 150
Crane Height, ft:(c) 31.3

Pool Depth, ft:(d) 44.3
Pool Width, ft:(d) 16.0
Pool Length, ft:(d) 18.0

COMMENTS: UPPER FLOOR LIMIT IS 1000 PSF.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: MISSOURI-KANSAS-TEXAS
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSOURI RIVER (5 MILES)
Barge Feasibility: YES

COMMENTS: TRUCK IS MOST PROBABLE, BOAT ACCESS IS POSSIBLE. TURBINES WERE LOADED FROM A BOAT. THERE USED TO BE TRAIN TRACKS UP TO THE PLANT, THESE HAVE SINCE BEEN TORN UP HOWEVER.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: CALVERT CLIFFS-1
UTILITY: BALTIMORE GAS AND ELECTRIC CO
NEAREST TOWN: LUSBY, MD
NRC DOCKET NUMBER: 50-317
REACTOR TYPE: PWR
RATING:(a) 825 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: NLI 1/2
Cask Experience: NACINFS4,NLI1/2
Cask Crane Capacity, tons: 150
Crane Height, ft:(c) 35

Pool Depth, ft:(d) 41
Pool Width, ft:(d) 9
Pool Length, ft:(d) 11

COMMENTS: CURRENTLY LIMITED BY FSAR CASK DROP ANALYSIS TO 25
TON CLASS CASKS

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONSOLIDATED RAIL
Distance from Rail Spur to Cask Loading Bay: 50 miles
Source of cooling water: CHESAPEAKE BAY
Barge Feasibility: YES

COMMENTS: PLANT IS ON A NAVIGABLE WATERWAY, WITH BARGE LANDING
AT LUSBY, MD. RAIL SIDING - WALDORF, MD

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: CALVERT CLIFFS-2
UTILITY: BALTIMORE GAS AND ELECTRIC CO
NEAREST TOWN: LUSBY, MD
NRC DOCKET NUMBER: 50-318
REACTOR TYPE: PWR
RATING:(a) 825 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: NLI 1/2
Cask Experience: NAC1NFS4,NLI1/2
Cask Crane Capacity, tons: 150
Crane Height, ft:(c) 35

Pool Depth, ft:(d) 41
Pool Width, ft:(d) 9
Pool Length, ft:(d) 11

COMMENTS: SEE COMMENTS, CALVERT CLIFFS-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONSOLIDATED RAIL
Distance from Rail Spur to Cask Loading Bay: 50 miles
Source of cooling water: CHESAPEAKE BAY
Barge Feasibility: YES

COMMENTS: SEE COMMENTS, CALVERT CLIFFS-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: CATAWBA-1
UTILITY: DUKE POWER COMPANY
NEAREST TOWN: CLOVER, SC
NRC DOCKET NUMBER: 50-413
REACTOR TYPE: PWR
RATING:(a) 1180 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b)
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 32.4

Pool Depth, ft:(d) 48.4
Pool Width, ft:(d) 9.1
Pool Length, ft:(d) 11.5

COMMENTS: PLANT CAN TAKE EITHER A TRUCK OR A RAIL CASK

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAY COMPANY
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE WYLIE
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: CATAWBA-2
UTILITY: DUKE POWER COMPANY
NEAREST TOWN: CLOVER, SC
NRC DOCKET NUMBER: 50-414
REACTOR TYPE: PWR
RATING:(a) 1180 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b)
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 32.4

Pool Depth, ft:(d) 48.4
Pool Width, ft:(d) 9.1
Pool Length, ft:(d) 11.5

COMMENTS: SEE COMMENTS; CATAWBA-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAY CO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE WYLIE
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: CLINTON-1
UTILITY: ILLINOIS POWER COMPANY
NEAREST TOWN: CLINTON, ILL
NRC DOCKET NUMBER: 50-461
REACTOR TYPE: BWR
RATING:(a) 928 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 26.0

Pool Depth, ft:(d) 43.0
Pool Width, ft:(d) 8.7
Pool Length, ft:(d) 8.7

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ILLINOIS CENTRAL GULF RR
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ARTIFICIAL LAKE
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: COMANCHE PEAK-1
UTILITY: TEXAS UTILITIES GENERATING COMPANY
NEAREST TOWN: GLEN ROSE, TX
NRC DOCKET NUMBER: 50-445
REACTOR TYPE: PWR
RATING:(a) 1150 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: TN-12
Cask Experience:
Cask Crane Capacity, tons: 130
Crane Height, ft:(c) 30

Pool Depth, ft:(d) 47
Pool Width, ft:(d) 13
Pool Length, ft:(d) 13

COMMENTS: FLOOR LOADING LIMIT IS 500 LB/SQ. FT.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ATCHISON-TOPEKA-SANTA FE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SQUAW CREEK RESERVOIR
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: COMANCHE PEAK-2
UTILITY: TEXAS UTILITIES GENERATING COMPANY
NEAREST TOWN: GLEN ROSE, TX
NRC DOCKET NUMBER: 50-446
REACTOR TYPE: PWR
RATING:(a) 1150 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: TN-12
Cask Experience:
Cask Crane Capacity, tons: 130
Crane Height, ft:(c) 30

Pool Depth, ft:(d) 47
Pool Width, ft:(d) 13
Pool Length, ft:(d) 13

COMMENTS: SEE COMMENTS; COMANCHE PEAK-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ATCHISON-TOPEKA-SANTE FE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water:
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: COOPER
UTILITY: NEBRASKA PUBLIC POWER DISTRICT
NEAREST TOWN: BROWNVILLE, NEB
NRC DOCKET NUMBER: 50-298
REACTOR TYPE: BWR
RATING:(a) 764 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: IF-300
Cask Experience: IF-300
Cask Crane Capacity, tons: 100
Crane Height, ft:(c) 25.4

Pool Depth, ft:(d) 38.7
Pool Width, ft:(d) N/A
Pool Length, ft:(d) N/A

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BURLINGTON NORTHERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSOURI RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT GASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: CRYSTAL RIVER-3
UTILITY: FLORIDA POWER CORPORATION
NEAREST TOWN: RED LEVEL, FL
NRC DOCKET NUMBER: 50-302
REACTOR TYPE: PWR
RATING:(a) 836 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TRUCK
Cask Experience: NAC-1
Cask Crane Capacity, tons: 120
Crane Height, ft:(c) 30.7

Pool Depth, ft:(d) 43.7
Pool Width, ft:(d) 10.0
Pool Length, ft:(d) 10.0

COMMENTS: HATCHSIZE IS 35.7' X 8.6'. HAVE ONLY ONCE USED A CASK:
SHIPPED AN NAC-1 SINGLE ELEMENT CASK TO OCONEE,FLA
IN 1977. MORE THAN LIKELY TO SHIP BY TRUCK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: SEABOARD COAST LINE
Distance from Rail Spur to Cask Loading Bay: 1 miles
Source of cooling water: GULF OF MEXICO
Barge Feasibility: YES

COMMENTS: HAVE A RAILSPUR, BUT IT IS NOT USEABLE RIGHT NOW;
RAILSPUR GOES TO A DIFFERENT AREA ON THE NUCLEAR
SITE AND IS LESS THAN 1 MILE AWAY. BARGE ACCESS IS
NOT PRESENTLY USEABLE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: D C COOK-1
UTILITY: INDIANA & MICHIGAN ELECTRIC CO.
NEAREST TOWN: BRIDGMAN, MICH
NRC DOCKET NUMBER: 50-315
REACTOR TYPE: PWR
RATING:(a) 1044 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 150
Crane Height, ft:(c) 35.0

Pool Depth, ft:(d) 44.3
Pool Width, ft:(d) 11.0
Pool Length, ft:(d) 11.0

COMMENTS: PRESENT CRANE RATING IS 75 TONS, BUT FULL 150 TON
RATING EXPECTED AGAIN. ONE CORNER OF THE SPENT FUEL
PIT IS SET ASIDE FOR CASK SET DOWN.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHESAPEAKE & OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS: NO BARGE FACILITIES AT PRESENT. OVERWEIGHT TRUCK
AS WELL AS RAIL CAR COULD GET INTO BAY AREA.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: D C COOK-2
UTILITY: INDIANA & MICHIGAN ELECTRIC CO.
NEAREST TOWN: BRIDGMAN, MICH
NRC DOCKET NUMBER: 50-316
REACTOR TYPE: PWR
RATING:(a) 1082 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 150
Crane Height, ft:(c) 35.0

Pool Depth, ft:(d) 44.3
Pool Width, ft:(d) 11.0
Pool Length, ft:(d) 11.0

COMMENTS: SEE COMMENTS; COOK-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHESAPEAKE & OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water:
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; COOK-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: DAVIS-BESSE-1
UTILITY: TOLEDO EDISON COMPANY
NEAREST TOWN: OAK HARBOR, OHIO
NRC DOCKET NUMBER: 50-346
REACTOR TYPE: PWR
RATING:(a) 874 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c)

Pool Depth, ft:(d) 42
Pool Width, ft:(d) 10
Pool Length, ft:(d) 10

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: NORFOLK AND WESTERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ERIE
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: DIABLO CANYON-1
UTILITY: PACIFIC GAS AND ELECTRIC CO.
NEAREST TOWN: AVILA BEACH, CA
NRC DOCKET NUMBER: 50-275
REACTOR TYPE: PWR
RATING:(a) 1086 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) N
Preferred Cask: IF-300
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 29.8

Pool Depth, ft:(d) 45.5
Pool Width, ft:(d) 10.0
Pool Length, ft:(d) 10.0

COMMENTS: UNITS 1 & 2 ARE IDENTICAL, EXCEPT OPPOSITE HANDED
SEE COMMENTS; DIABLO CANYON-2

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: SAN LUIS
Distance from Rail Spur to Cask Loading Bay: 20 miles
Source of cooling water: PACIFIC OCEAN
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; DIABLO CANYON-2

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: DIABLO CANYON-2
UTILITY: PACIFIC GAS AND ELECTRIC CO
NEAREST TOWN: AVILA BEACH, CA
NRC DOCKET NUMBER: 50-323
REACTOR TYPE: PWR
RATING: (a) 1119 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) N
Preferred Cask: IF-300
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft: (c) 29.8

Pool Depth, ft: (d) 45.5
Pool Width, ft: (d) 10.0
Pool Length, ft: (d) 10.0

COMMENTS: 70 TON CRANE RATING FOR USE ALTHOUGH LISTED @ 125 TONS. PLANT WAS DESIGNED ASSUMING A 70 TON CASK 5 FT IN DIAMETER, 17.5 FT LONG. A MUCH LARGER CASK WOULD NOT BE APPROPRIATE. LITTLE ROOM ON OPERATING FLOOR AREA (6-7' WIDE) RATED FOR 1000 LBS/SQ FT.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: SAN LUIS
Distance from Rail Spur to Cask Loading Bay: 20 miles
Source of cooling water: PACIFIC OCEAN
Barge Feasibility: YES

COMMENTS: A TEMPORARY DOCK WAS BUILT DURING CONSTRUCTION, BUT WAS TORN DOWN SOME YEARS AGO. BUT HEAVIER LOADS THAN CASKS WOULD BE HAVE BEEN MOVED IN BY TRUCK.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: DRESDEN-1
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: MORRIS, ILL
NRC DOCKET NUMBER: 50-010
REACTOR TYPE: BWR
RATING: (a) 200 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: TN-9
Cask Experience: NFS-4/NAC-1
Cask Crane Capacity, tons: 75
Crane Height, ft: (c) 25.0

Pool Depth, ft: (d) 40.0
Pool Width, ft: (d) 10
Pool Length, ft: (d) 15.8

COMMENTS: REACTOR WAS SHUT DOWN 10/31/78. LTG. FACTORS: OVERHEAD
CRANE CAPABILITIES, AND CLEARANCE CAPABILITIES. POOL
IS ONE-OF-A-KIND. CASK DROP ANALYSIS NECESSARY FOR
EACH CASK TYPE. CO. OWNS TN-9 AND WOULD PREFER ITS
USE.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BALTIMORE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: KANKAKEE RIVER
Barge Feasibility: YES

COMMENTS: EITHER TRUCK OR RAIL HAVE ACCESS. DOCK IS NEARBY

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: DRESDEN-2
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: MORRIS, ILL
NRC DOCKET NUMBER: 50-237
REACTOR TYPE: BWR
RATING:(a) 794 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TN-9
Cask Experience: TN-9,IF-300
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 37.8
Pool Width, ft:(d) 8.0
Pool Length, ft:(d) 12.0

COMMENTS: 2 MAJOR PROBLEMS, HATCH SIZE AND GRAPPLE. BOTH LIMIT
MAXIMUM CASK LENGTH. UNITS 2 & 3 SHARE HATCH. PROCEDURE
TO GET CASK UPRIGHT HAS BEEN MODIFIED SO THEY CAN
GET THE TN-9 OUT. IN UNITS 2 & 3, NORMAL FUEL GRAPPLE
CAN NOT BE RETRACTED FAR ENOUGH (8" SHY)

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BALTIMORE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: COOLING LAKE
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; DRESDEN-3

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: DRESDEN-3
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: MORRIS, ILL
NRC DOCKET NUMBER: 50-249
REACTOR TYPE: BWR
RATING:(a) 794 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TN-9
Cask Experience: TN-9; IF-300
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 37.8
Pool Width, ft:(d) 8.0
Pool Length, ft:(d) 12.0

COMMENTS: UNITS 2 AND 3 ARE SIMILAR. SEE NOTES ON UNIT 2. FULL
RAISED POSITION OF CRANE GIVES 28.0' HEIGHT. LOSE
ABOUT 2' DUE TO HOOKUP W/YOKE. 24.5' IS DISTANCE
TO LOWER I-BEAM. NO WELL, CASK WOULD BE SET ON A
PAD IN THE POOL.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BALTIMORE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: COOLING LAKE
Barge Feasibility: YES

COMMENTS: RAILSPUR HASN'T BEEN USED IN A WHILE. IN ILLINOIS,
IN GENERAL HAVE BEEN ABLE TO GET NECESSARY TRANSPORTATION
PERMITS EXCEPT IN INCLEMENT WEATHER.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: DUANE ARNOLD
UTILITY: IOWA ELECTRIC LIGHT AND POWER CO.
NEAREST TOWN: PALO, IOWA
NRC DOCKET NUMBER: 50-331
REACTOR TYPE: BWR
RATING:(a) 515 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: SEE COMMENTS
Cask Experience:
Cask Crane Capacity, tons: 100
Crane Height, ft:(c) 25

Pool Depth, ft:(d) 39.1
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 10.0

COMMENTS: FLOOR LIMIT- 1000 LB/SQ. FT. ALSO, HAVE WORKED WITH
A G.E. IF-300

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: IOWA NORTHERN RAILROAD
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: CEDAR RAPIDS RIVER
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: FARLEY-1
UTILITY: ALABAMA POWER CO.
NEAREST TOWN: DOTHAN, ALA
NRC DOCKET NUMBER: 50-348
REACTOR TYPE: PWR
RATING:(a) 804 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NO
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 20.3

Pool Depth, ft:(d) 40.6
Pool Width, ft:(d) 11.0
Pool Length, ft:(d) 13.3

COMMENTS: 2 SPENT FUEL POOLS, BUTT UP AGAINST EACH OTHER WITH
ONE COMMON WALL AND A SHARED CRANE. MUST PROOF TEST
LIFTING CAPACITY OF CRANE BEFORE USING IT TO LIFT
A CASK CONTAINING SPENT FUEL.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CENTRAL OF GEORGIA
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: CHATAHOOCHEE RIVER
Barge Feasibility: YES

COMMENTS: RAIL SPUR COMES UNDERNEATH CRANE. CRANE CAN SET CASK
DIRECTLY ON RAIL CAR EVEN THOUGH SPUR DOES NOT EXTEND
INTO CASK LOADING BAY PER SE. BARGE UNLOADING FACILITY
MAY STILL EXIST AND NOT HARD TO RECONSTRUCT. USED
TO BRING REACTOR VESSELS ON-SITE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: FARLEY-2
UTILITY: ALABAMA POWER CO.
NEAREST TOWN: DOTHAN, ALA
NRC DOCKET NUMBER: 50-364
REACTOR TYPE: PWR
RATING:(a) 814 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NO
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 20.3

Pool Depth, ft:(d) 40.6
Pool Width, ft:(d) 11.0
Pool Length, ft:(d) 13.3

COMMENTS: UNITS 1 AND 2 ARE IDENTICAL EXCEPT ONE IS A MIRROR
IMAGE OF THE OTHER. SEE COMMENTS; FARLEY-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CENTRAL OF GEORGIA
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: CHATAHOOCHEE RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; FARLEY 1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: FERMI-2
UTILITY: DETROIT EDISON COMPANY
NEAREST TOWN: NEWPORT, MICH.
NRC DOCKET NUMBER: 50-341
REACTOR TYPE: BWR
RATING:(a) 1093 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 24.7

Pool Depth, ft:(d) 37.7
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 9.0

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: DETROIT AND TOLEDO SHORE LINE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ERIE
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: FITZPATRICK
UTILITY: POWER AUTH. OF STATE OF NY
NEAREST TOWN: SCRIBA, NY
NRC DOCKET NUMBER: 50-333
REACTOR TYPE: BWR
RATING:(a) 821 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 40

Pool Depth, ft:(d) 39
Pool Width, ft:(d) 12
Pool Length, ft:(d) 14

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ONTARIO
Barge Feasibility: YES

COMMENTS: THE RAILROAD SERVING THIS SITE HAS NOT BEEN USED FOR
SOME TIME.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: FORT CALHOUN-1
UTILITY: OMAHA PUBLIC POWER DISTRICT
NEAREST TOWN: FORT CALHOUN, NEB
NRC DOCKET NUMBER: 50-285
REACTOR TYPE: PWR
RATING:(a) 471 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 75
Crane Height, ft:(c) 28.2

Pool Depth, ft:(d) 44.0
Pool Width, ft:(d) 7.3
Pool Length, ft:(d) 7.7

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CHICAGO AND NORTHWESTERN
Distance from Rail Spur to Cask Loading Bay: 6 miles
Source of cooling water: MISSOURI RIVER
Barge Feasibility: YES

COMMENTS: REACTOR VESSEL AND STEAM GENERATORS SHIPPED BY BARGE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: GINNA
UTILITY: ROCHESTER GAS AND ELECTRIC CORP.
NEAREST TOWN: ONTARIO, NY
NRC DOCKET NUMBER: 50-244
REACTOR TYPE: PWR
RATING:(a) 470 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NLI-1/2
Cask Experience: NAC-1 NFS-4
Cask Crane Capacity, tons: 40
Crane Height, ft:(c)

Pool Depth, ft:(d) 40
Pool Width, ft:(d) 12.4
Pool Length, ft:(d) 12.4

COMMENTS: WITHIN THE SPENT FUEL POOL AREA, A 153 SQ. FT AREA
IS SET ASIDE FOR CASK HANDLING OPERATIONS.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: ONTARIO MIDLAND
Distance from Rail Spur to Cask Loading Bay: 5 miles
Source of cooling water: LAKE ONTARIO
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: GRAND GULF-1
UTILITY: MISSISSIPPI POWER AND LIGHT CO
NEAREST TOWN: PORT GIBSON, MISS
NRC DOCKET NUMBER: 50-416
REACTOR TYPE: BWR
RATING:(a) 1254 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 150
Crane Height, ft:(c) 38.0

Pool Depth, ft:(d) 49.0
Pool Width, ft:(d) 16.0
Pool Length, ft:(d) 16.0

COMMENTS: REACTORS 1,2, AND FUEL HANDLING SYSTEMS ARE SIMILAR
ALTHOUGH THEY DO NOT SHARE A POOL.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ILLINOIS CENTRAL GULF RR
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: YES

COMMENTS: NO RAIL LIMITS KNOWN. USED BARGE ON MISSISSIPPI RIVER
DURING CONSTRUCTION.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: GRAND GULF-2
UTILITY: MISSISSIPPI POWER AND LIGHT CO
NEAREST TOWN: PORT GIBSON, MISS
NRC DOCKET NUMBER: 50-417
REACTOR TYPE: BWR
RATING:(a) 1250 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 38.0

Pool Depth, ft:(d) 49.0
Pool Width, ft:(d) 16.0
Pool Length, ft:(d) 16.0

COMMENTS: SEE COMMENTS; GRAND GULF-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ILLINOIS CENTRAL GULF RR
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; GRAND GULF-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: HADDAM NECK
UTILITY: NORTHEAST UTILITIES
NEAREST TOWN: HADDAM NECK, CONN.
NRC DOCKET NUMBER: 90-213
REACTOR TYPE: PWR
RATING:(a) 582 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: 1F-200, NAC-1
Cask Crane Capacity, tons: 100
Crane Height, ft:(c) 28

Pool Depth, ft:(d) 35
Pool Width, ft:(d) 6.5
Pool Length, ft:(d) 6.5

COMMENTS: INFORMATION FROM FSAR NOT YET VERIFIED. 83 BUNDLES
WERE SENT OFF-SITE 7-8 YEARS AGO.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 15 miles
Source of cooling water: CONNECTICUT RIVER
Barge Feasibility: YES

COMMENTS: GROSS WEIGHTS OVER 100 TONS ALLOWED ON ACCESS ROADS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: HARRIS -1
UTILITY: CAROLINA POWER AND LIGHT
NEAREST TOWN: NEWHILL, NC
NRC DOCKET NUMBER: 80-400
REACTOR TYPE: PWR
RATING: (a) 900 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: IF-300
Cask Experience:
Cask Crane Capacity, tons: 150
Crane Height, ft: (c) 27.0

Pool Depth, ft: (d) 35.0
Pool Width, ft: (d) 12.0
Pool Length, ft: (d) 12.0

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SEABOARD COASTLINE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: BUCKHORN CREEK
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: HATCH-1
UTILITY: GEORGIA POWER COMPANY
NEAREST TOWN: BAXLEY, GA
NRC DOCKET NUMBER: 50-321
REACTOR TYPE: BWR
RATING:(a) 765 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: 1F-300
Cask Experience: NO
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 39.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 14.0

COMMENTS: IN GENERAL DESIGNED FOR 1F-300, BUT CAN HANDLE CASKS
UP TO 125 TONS. YOKE PIN HANDLES ONLY 70 TONS. WOULD
NEED MODIFIED YOKE PIN FOR HEAVIER CASKS.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAYS
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ALTAMAHA RIVER
Barge Feasibility: NO

COMMENTS: NO PLANS TO ANALYZE ROAD LIMITS PRIOR TO ACTUAL SHIPMENT
OF SPENT FUEL. BARGE ACCESS IS NOT FEASIBLE. LAST
SUMMER DERATED POWER BECAUSE OF DROUGHT CONDITIONS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: HATCH-2
UTILITY: GEORGIA POWER COMPANY
NEAREST TOWN: BAXLEY, GA
NRC DOCKET NUMBER: 50-366
REACTOR TYPE: BWR
RATING:(a) 775 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: 1F-300
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 39.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 14.0

COMMENTS: NO SPENT FUEL SHIPPING HAS OCCURRED. SEE COMMENTS;
HATCH-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAYS
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ALTAMAHA RIVER
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: HOPE CREEK-1
UTILITY: PUBLIC SERVICE ELECTRIC AND GAS CO.
NEAREST TOWN: SALEM, NJ
NRC DOCKET NUMBER: 50-354
REACTOR TYPE: BWR
RATING: (a) 1067 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 150
Crane Height, ft: (c) *

Pool Depth, ft: (d) 45.0
Pool Width, ft: (d) 11.0
Pool Length, ft: (d) 11.0

COMMENTS: SCHEDULED FOR COMMERCIAL OPERATION IN FALL OF 1986
*ALTHOUGH CRANE HEIGHT WAS NOT KNOWN, IT IS GREAT
ENOUGH TO ALLOW THE HANDLING OF AN IF300 CASK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 15 miles
Source of cooling water: DELAWARE RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: HUMBOLDT BAY
UTILITY: PACIFIC GAS AND ELECTRIC CO.
NEAREST TOWN: EUREKA
NRC DOCKET NUMBER: 50-133
REACTOR TYPE: BWR
RATING:(a) 63 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NFS-100
Cask Experience: NFS-100
Cask Crane Capacity, tons: 75
Crane Height, ft:(c) 24.0

Pool Depth, ft:(d) 36.0
Pool Width, ft:(d) 12.5
Pool Length, ft:(d) 10.0

COMMENTS: HUMBOLDT BAY IS CURRENTLY BEING DECOMMISSIONED. CASK HANDLING OPERATING PROCEDURES LIMIT CASK HANDLING AREA TO CASK PIT AND AREA IMMEDIATELY ADJACENT TO SPENT FUEL POOL. UPPER LIMIT >100 TONS

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: NORTHWESTERN PACIFIC RR
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: HUMBOLDT BAY
Barge Feasibility: NO

COMMENTS: ONE SOURCE BELIEVES RAILSPUR HAS BEEN MADE NON-FUNCTIONAL "RAILROAD DOORS" OPENING 15'W X 16'H. REACTOR IS ON HUMBOLDT BAY OFF THE PACIFIC OCEAN, BUT THERE IS NO DOCK. SPENT FUEL SHIPMENTS USING THE NFS-100 WERE MADE FROM 1970-1971.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: INDIAN POINT-1
UTILITY: CONSOLIDATED EDISON CO. OF NEW YORK
NEAREST TOWN: INDIAN POINT, NY
NRC DOCKET NUMBER: 50-3
REACTOR TYPE: PWR
RATING:(a) 265 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: IF-300
Cask Experience: GE IF-200
Cask Crane Capacity, tons: 75
Crane Height, ft:(c) 18.0

Pool Depth, ft:(d) 40.0
Pool Width, ft:(d) 10.0
Pool Length, ft:(d) 19.0

COMMENTS: CASK SIZE LIMITED BY INSUFFICIENT ROOM TO LIFT CASK
OFF TRAILER; CRANE HEIGHT IN BLDG PREVENTS USE OF
A VERY LONG CASK. CASK DIAMETER LIMITED BECAUSE PAD
IT RESTS UPON IS ONLY ABOUT 3 FT. D. WOULD NEED
NEW LARGER PAD FOR LARGER CASK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONSOLIDATED RAIL
Distance from Rail Spur to Cask Loading Bay: 1.5 miles
Source of cooling water: HUDSON RIVER
Barge Feasibility: YES

COMMENTS: 10 YRS AGO STUDIED USE OF GE IF-300 CASK. 3 CASES
1) CULVERT BRIDGE WT. LIM PROBLEM. 2) ANOTHER BRIDGE
W/WTLIMS. 3) BUILD A SECOND RAIL SIDING, THIS IS
PROBABLY WHAT WOULD HAVE TO BE DONE. WHARF ON HUDSON
IS MAINTAINED AND AVAILABLE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: INDIAN POINT-2
UTILITY: CONSOLIDATED EDISON CO. OF NEW YORK
NEAREST TOWN: INDIAN POINT, NY
NRC DOCKET NUMBER: 50-247
REACTOR TYPE: PWR
RATING:(a) 873 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 40
Crane Height, ft:(c) 24.0

Pool Depth, ft:(d) 40.4
Pool Width, ft:(d) 8.0
Pool Length, ft:(d) 8.0

COMMENTS: NEVER HAD A CASK IN UNIT 2 POOL. CRANE HEIGHT LIMITS
POSSIBLE LENGTH OF CASK. CASK IN VERTICAL POSITION
WOULD HAVE TO BE LIFTED OVER BOTH A WALL AND A GUARD
RAIL.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONSOLIDATED RAIL
Distance from Rail Spur to Cask Loading Bay: 1.5 miles
Source of cooling water: HUDSON RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; INDIAN POINT-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: INDIAN POINT-3
UTILITY: POWER AUTH. OF THE ST. OF NY
NEAREST TOWN: INDIAN POINT, NY
NRC DOCKET NUMBER: 50-286
REACTOR TYPE: PWR
RATING:(a) 965 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TRUCK
Cask Experience: NONE
Cask Crane Capacity, tons: 40
Crane Height, ft:(c) 24

Pool Depth, ft:(d) 40.0
Pool Width, ft:(d) 7.9
Pool Length, ft:(d) 8.4

COMMENTS: CRANEHEIGHT IS MEASURED, IN THIS CASE, AS DISTANCE
FROM MIDPOINT OF HOOK ON CRANE TO CENTER OF RAIL.
SEE COMMENTS; INDIAN POINT-2.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONSOLIDATED RAIL
Distance from Rail Spur to Cask Loading Bay: 1.5 miles
Source of cooling water: HUDSON RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; INDIAN POINT-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: KEWAUNEE
UTILITY: WISCONSIN PUBLIC SERVICE CORPORATION
NEAREST TOWN: CARLTON, WIS
NRC DOCKET NUMBER: 50-305
REACTOR TYPE: PWR
RATING:(a) 520 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 29.6

Pool Depth, ft:(d) 40.8
Pool Width, ft:(d) 9.5
Pool Length, ft:(d) 9.5

COMMENTS: OCTAGONAL BEARING PLATE IN POOL MEASURES 9.5 ' FROM
FLAT TO FLAT ON OCTAGON. POOL ACTUALLY MEASURES 17.2'
X 18.9'. PLANT WAS DESIGNED TO HANDLE 40 T TRUCK
CASK OR 110 T RAIL CASK. WEIGHT IS PROBABLY LIMITED
BY OVERHEAD CRANE CAPACITY OF 125 T.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: GREEN BAY AND WESTERN
Distance from Rail Spur to Cask Loading Bay: 5 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS: LOCATED ON LAKE, BUT IT IS UNCLEAR WHETHER THERE IS
BARGE ACCESS. THERE IS NO LANDING, BUT THERE IS
A DEEP-WATER PORT ON THE LAKE ABOUT 10 MILES FROM
THE SITE THAT IS CURRENTLY USED FOR FERRYING RAILCARS, ETC.
ON A DAILY BASIS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: LA CROSSE
UTILITY: DAIRYLAND POWER COOPERATIVE
NEAREST TOWN: GENOA, WIS
NRC DOCKET NUMBER: 50-409
REACTOR TYPE: BWR
RATING:(a) 48 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NAC-1/NFS-4
Cask Experience: NAC-1/NFS4
Cask Crane Capacity, tons: 50
Crane Height, ft:(c) 23.0

Pool Depth, ft:(d) 36.8
Pool Width, ft:(d) 5.5
Pool Length, ft:(d) 5.5

COMMENTS: NAC-1 IS MAXIMUM SIZE CASK ABLE TO HANDLE, AND REACTOR
MUST BE SHUT DOWN FOR ITS USE BECAUSE BOTH AIRLOCK
DOORS MUST BE OPEN (AIRLOCK IS 15' LONG). WITH NAC-1,
HAD TO BEGIN LIFTING CASK INTO UPRIGHT POSITION BEFORE
IT WAS COMPLETELY OUT OF AIRLOCK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: BURLINGTON NORTHERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water:
Barge Feasibility: YES

COMMENTS: RAILSPUR HASN'T BEEN USED FOR SEVERAL YEARS, AND MOST
RAILCASKS WOULD BE TOO LARGE FOR FACILITY ANYWAY.
FREQUENTLY USE BARGE FACILITIES FOR COAL SHIPMENTS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: LA SALLE-1
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: SENECA, ILL
NRC DOCKET NUMBER: 50-373
REACTOR TYPE: BWR
RATING: (a) 1080 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) B
Preferred Cask: NAC-1NFS-4, TN-9
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft: (c)

Pool Depth, ft: (d) 44
Pool Width, ft: (d) 10
Pool Length, ft: (d) 10

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ATCHISON, TOPEKA, SANTA FE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: RESERVOIR
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: LA SALLE-2
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: SENECA, ILL
NRC DOCKET NUMBER: 50-374
REACTOR TYPE: BWR
RATING: (a) 1090 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) B
Preferred Cask: NAC-1NFS-4, TN-9
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft: (c) 27

Pool Depth, ft: (d) 44
Pool Width, ft: (d) 10
Pool Length, ft: (d) 10

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: ATCHISON, TOPEKA, SANTA FE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: RESERVOIR
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: LIMERICK-1
UTILITY: PHILADELPHIA ELECTRIC COMPANY
NEAREST TOWN: POTTSTOWN, PA
NRC DOCKET NUMBER: 50-352
REACTOR TYPE: BWR
RATING:(a) 1100 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) C
Preferred Cask: NONE SPECIFIED
Cask Experience: NONE
Cask Crane Capacity, tons: 110
Crane Height, ft:(c) 31.0

Pool Depth, ft:(d) 42.0
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 14.0

COMMENTS: 125 TON MAIN HOOK FOR CRANE, BUT MAXIMUM LIFT FOR
CRITICAL LOADING (ACCOUNTING FOR DYNAMIC WEIGHT)
IS 110 TON. FLOOR LOADING LIMITS ARE 1000 LBS PER
SQUARE FOOT.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SCHUYLKILL RIVER
Barge Feasibility: NO

COMMENTS: SCHUYLKILL RIVER IS TOO SHALLOW IN NEAREST PART TO
BRING IN A BARGE. IF THEY ARE TO DO ANY KIND OF CASK
HANDLING, 95% CERTAIN THEY WOULD SHIP BY RAIL; LINE
IS OPERATING AND IN GOOD SHAPE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: LIMERICK-2
UTILITY: PHILADELPHIA ELECTRIC COMPANY
NEAREST TOWN: POTTSTOWN, PA
NRC DOCKET NUMBER: 50-353
REACTOR TYPE: BWR
RATING: (a) 1100 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) C
Preferred Cask: NO
Cask Experience: NONE
Cask Crane Capacity, tons: 110*
Crane Height, ft: (c) 31.0

Pool Depth, ft: (d) 42.0
Pool Width, ft: (d) 9.0
Pool Length, ft: (d) 14.0

COMMENTS: LIMERICK 1 AND LIMERICK 2 HAVE SEPARATE AREAS FOR
SETTING CASKS THAT ARE OF IDENTICAL DIMENSIONS.
A TRANSFER CANAL CONNECTS THE POOLS, AND THE CRANE
IS SHARED. SEE COMMENTS; LIMERICK-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SCHUYLKILL RIVER
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; LIMERICK-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: MAINE YANKEE
UTILITY: MAINE YANKEE ATOMIC POWER COMPANY
NEAREST TOWN: WISCASSET, ME
NRC DOCKET NUMBER: 50-309
REACTOR TYPE: PWR
RATING:(a) 810 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 31.7

Pool Depth, ft:(d) 36.5
Pool Width, ft:(d) 10.0
Pool Length, ft:(d) 10.0

COMMENTS: NOT LICENSED TO USE A CASK. TECH SPEC PROHIBITS LICENSING
SPENT FUEL CASK UNTIL CASK DROP ACCIDENT ANALYZED.
NO SERIOUS CONSIDERATION OF CASK TYPE AT THIS TIME

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MAIN CENTRAL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: BACK RIVER
Barge Feasibility: YES

COMMENTS: NO DOCK, BUT LARGER COMPONENTS WERE BROUGHT IN BY
BARGE UP BACK RIVER DURING CONSTRUCTION. RIVER USE
OPTION CONCEIVABLE. RAIL TRACKS THERE BUT NEVER
USED.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: MARBLE HILL-1
UTILITY: PUBLIC SERVICE COMPANY OF INDIANA
NEAREST TOWN: JEFFERSON COUNTY, IN
NRC DOCKET NUMBER: 50-546
REACTOR TYPE: PWR
RATING:(a) 1115 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 41.0
Pool Width, ft:(d) 5.5
Pool Length, ft:(d) 5.5

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHESAPEAKE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: OHIO RIVER
Barge Feasibility: YES

COMMENTS: RAIL LIMIT IS 100 TONS ON STANDARD RAILROAD CAR WITH
4 AXLES.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: MARBLE HILL-2
UTILITY: PUBLIC SERVICE COMPANY OF INDIANA
NEAREST TOWN: JEFFERSON COUNTY, IN
NRC DOCKET NUMBER: 50-547
REACTOR TYPE: PWR
RATING:(a) 1115 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 41.0
Pool Width, ft:(d) 5.5
Pool Length, ft:(d) 5.5

COMMENTS: SEE COMMENTS: MARBLE HILL-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHESAPEAKE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: OHIO RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS: MARBLE HILL-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: MCGUIRE-1
UTILITY: DUKE POWER COMPANY
NEAREST TOWN: CORNELIUS, SC
NRC DOCKET NUMBER: 50-369
REACTOR TYPE: PWR
RATING: (a) 1180 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) ?
Preferred Cask: TRUCK
Cask Experience: NLI 1/2
Cask Crane Capacity, tons: 125
Crane Height, ft: (c) 26.2

Pool Depth, ft: (d) 48.4
Pool Width, ft: (d) 9.1
Pool Length, ft: (d) 11.1

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE NORMAN
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: MC GUIRE-2
UTILITY: DUKE POWER COMPANY
NEAREST TOWN: CORNELIUS, SC.
NRC DOCKET NUMBER: 50-370
REACTOR TYPE: PWR
RATING:(a) 1180 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) ?
Preferred Cask: TRUCK
Cask Experience: NLI 1/2
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 26.2

Pool Depth, ft:(d) 48.4
Pool Width, ft:(d) 9.1
Pool Length, ft:(d) 11.1

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE NORMAN
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: MILLSTONE-1
UTILITY: NORTHEAST UTILITIES
NEAREST TOWN: WATERFORD, CONN
NRC DOCKET NUMBER: 50-245
REACTOR TYPE: BWR
RATING:(a) 652 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 110
Crane Height, ft:(c) 22

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 7.3
Pool Length, ft:(d) 7.3

COMMENTS: THE SPENT FUEL POOL HAS NO CASK 'WELL'. A 53 SQ. FT
AREA IS SET ASIDE IN THE SPENT FUEL POOL FOR CASK
HANDLING OPERATIONS. INTERLOCKING ACCESS DOORS MUST
BE CLOSED DURING CASK OPERATIONS.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LONG ISLAND SOUND/A.OCEAN
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: MILLSTONE-2
UTILITY: NORTHEAST UTILITIES
NEAREST TOWN: WATERFORD, CONN
NRC DOCKET NUMBER: 50-336
REACTOR TYPE: PWR
RATING:(a) 864 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 100
Crane Height, ft:(c) 25

Pool Depth, ft:(d) 38.5
Pool Width, ft:(d) 9
Pool Length, ft:(d) 9

COMMENTS: THE ACCESS DOORS MUST BE CLOSED DURING CASK OPERATIONS.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LONG ISLAND SOUND/A.OCEAN
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: MILLSTONE-3
UTILITY: NORTHEAST UTILITIES
NEAREST TOWN: WATERFORD, CONN
NRC DOCKET NUMBER: 50-423
REACTOR TYPE: PWR
RATING:(a) 1150 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 100
Crane Height, ft:(c)

Pool Depth, ft:(d)
Pool Width, ft:(d)
Pool Length, ft:(d)

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LONG IS. SOUND/ATLANTIC O
Barge Feasibility:

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: MONTICELLO
UTILITY: NORTHERN STATES POWER COMPANY
NEAREST TOWN: MONTICELLO, MINN
NRC DOCKET NUMBER: 50-263
REACTOR TYPE: BWR
RATING:(a) 525 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: IF-300
Cask Experience: NAC1NFS4,NLI1/2
Cask Crane Capacity, tons: 85.
Crane Height, ft:(c) 24.0

Pool Depth, ft:(d) 39.0
Pool Width, ft:(d) 6.0
Pool Length, ft:(d) 9.0

COMMENTS: THE ACCESS DOORS MUST BE CLOSED DURING CASK OPERATIONS,
AND A CAR FULLER IS USED TO POSITION THE CASK

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BURLINGTON NORTHERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: NINE MILE POINT-1
UTILITY: NIAGARA MOHAWK POWER CORPORATION
NEAREST TOWN: SCRIBA, NY
NRC DOCKET NUMBER: 50-220
REACTOR TYPE: BWR
RATING:(a) 610 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 24.5

Pool Depth, ft:(d) 38.3
Pool Width, ft:(d) 9.2
Pool Length, ft:(d) 9.2

COMMENTS: ALL SPENT FUEL TO DATE IS ON-SITE. FSAR MENTIONED
7.0' X 7.0' STRIKER PLATE THAT COULD LIMIT WHERE
CASK CAN BE SET ON FLOOR. INSIDE DIAMETER OF CASK
LOADING WELL IS 110.5".

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ONTARIO
Barge Feasibility: YES

COMMENTS: LIMITATIONS ON ACCESS ROADS. NO DOCK.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: NINE MILE POINT-2
UTILITY: NIAGARA MOHAWK POWER CORPORATION
NEAREST TOWN: SCRIBA, NY
NRC DOCKET NUMBER: 50-410
REACTOR TYPE: BWR
RATING:(a) 1080 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience:
Cask Crane Capacity, tons: 120.
Crane Height, ft:(c) 36.0

Pool Depth, ft:(d) 38.0
Pool Width, ft:(d) 10.0
Pool Length, ft:(d) 10.0

COMMENTS: CASK LOADING WELL IS CYLINDRICAL, WITH A 10 FOOT
INSIDE DIAMETER.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ONTARIO
Barge Feasibility: YES

COMMENTS: SEE COMMENTS: NINE MILE POINT-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: NORTH ANNA-1
UTILITY: VIRGINIA ELECTRIC POWER COMPANY
NEAREST TOWN: MINERAL, VA
NRC DOCKET NUMBER: 50-338
REACTOR TYPE: PWR
RATING:(a) 865 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: TN9
Cask Experience: NONE
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 29.0

Pool Depth, ft:(d) 45.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: LICENSEE KNOWS AN 18' HIGH CASK (THE TN-9) CAN BE
HANDLED.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHESAPEAKE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ANNA
Barge Feasibility: NO

COMMENTS: TRACKS ARE ON-SITE AND THERE ARE PLANS FOR A RAILSPUR,
BUT IT DOESN'T EXIST YET. LOCATED ON A LAKE, BUT
NO BARGE ACCESS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: NORTH ANNA-2
UTILITY: VIRGINIA ELECTRIC POWER COMPANY
NEAREST TOWN: MINERAL, VA
NRC DOCKET NUMBER: 50-339
REACTOR TYPE: PWR
RATING:(a) 890 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: TN-9
Cask Experience: NONE
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 29.0

Pool Depth, ft:(d) 45.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: SAME POOL FOR NORTH ANNA-1 AND NORTH ANNA-2.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHESAPEAKE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ANNA
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; NORTH ANNA-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well

PLANT NAME: OCONEE-1
UTILITY: DUKE POWER COMPANY
NEAREST TOWN: SENECA, SC
NRC DOCKET NUMBER: 50-269
REACTOR TYPE: PWR
RATING:(a) 886 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TRUCK
Cask Experience: NAC-1 & NLI-1/2
Cask Crane Capacity, tons: 100
Crane Height, ft:(c) 23.7

Pool Depth, ft:(d) 44.0
Pool Width, ft:(d) 7.1
Pool Length, ft:(d) 8.7

COMMENTS: CAN ONLY HANDLE SMALLER CASKS, IN ORDER TO USE AN
OVERWEIGHT CASK THE PLANT WOULD NEED TO BE MODIFIED.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: SOUTHERN
Distance from Rail Spur to Cask Loading Bay: 10 miles
Source of cooling water: LAKE KEOWEE
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: OCONEE-2
UTILITY: DUKE POWER COMPANY
NEAREST TOWN: SENECA, SC
NRC DOCKET NUMBER: 50-270
REACTOR TYPE: PWR
RATING:(a) 886 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NAC-1, NLI-1/2
Cask Experience: NAC-1, NLI-1/2
Cask Crane Capacity, tons: 100.
Crane Height, ft:(c) 23.7

Pool Depth, ft:(d) 44.0
Pool Width, ft:(d) 7.1
Pool Length, ft:(d) 8.7

COMMENTS: SEE COMMENTS; OCONEE-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: SOUTHERN
Distance from Rail Spur to Cask Loading Bay: 10 miles
Source of cooling water: LAKE KEOWEE
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; OCONEE-1

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: OCONEE-3
UTILITY: DUKE POWER COMPANY
NEAREST TOWN: SENECA, SC
NRC DOCKET NUMBER: 50-287
REACTOR TYPE: PWR
RATING: (a) 886 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: TN-8
Cask Experience: NAC-1, NLI-1/2
Cask Crane Capacity, tons: 100.
Crane Height, ft: (c) 23.8

Pool Depth, ft: (d) 44
Pool Width, ft: (d) 7.2
Pool Length, ft: (d) 8.9

COMMENTS: THE LICENSEE JUDGES THE TN-8 CASK TO BE THE LARGEST
SPENT FUEL CASK THAT COULD BE HANDLED AT THIS PLANT

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: SOUTHERN
Distance from Rail Spur to Cask Loading Bay: 10 miles
Source of cooling water: LAKE KEOWEE
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; OCONEE-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: OYSTER CREEK
UTILITY: JERSEY CENTRAL POWER AND LIGHT CO.
NEAREST TOWN: FORKED RIVER, NJ
NRC DOCKET NUMBER: 50-219
REACTOR TYPE: BWR
RATING:(a) 620 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TN-9/NFS-4/NAC1
Cask Experience: NAC-1 NFS-4
Cask Crane Capacity, tons: 100.
Crane Height, ft:(c) 24.0

Pool Depth, ft:(d) 41.0
Pool Width, ft:(d) 12.4
Pool Length, ft:(d) 12.4

COMMENTS: THE SPENT FUEL POOL HAS NO CASK 'WELL'. A 153 SQ.
FT AREA IS SET ASIDE IN THE SFP FOR CASK HANDLING
OPERATIONS. THE FACILITY ACCESS DOORS MUST BE CLOSED
DURING CASK OPERATIONS.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 15 miles
Source of cooling water: BARNAGET BAY
Barge Feasibility: YES

COMMENTS: THE RAILROAD SPUR HAS BEEN ABANDONED BY THE RAILROAD
AND THE TRACKS HAVE BEEN REMOVED FROM THE AIRLOCK
AND THE SITE PROPER.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: PALISADES
UTILITY: CONSUMERS POWER COMPANY
NEAREST TOWN: SOUTH HAVEN, MICH.
NRC DOCKET NUMBER: 50-255
REACTOR TYPE: PWR
RATING:(a) 740 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NAC-1
Cask Experience:
Cask Crane Capacity, tons: 100.
Crane Height, ft:(c) 27.0

Pool Depth, ft:(d) 40.6
Pool Width, ft:(d) 3.7
Pool Length, ft:(d) 3.7

COMMENTS: MAIN SPENT FUEL POOL CRANE CAPACITY DERATED FROM 100
TO 25T AS A RESULT OF HEAVY OBJECT DROP ANALYSIS.
AUXILIARY CRANE RATED AT 25T. IT WILL TAKE 1.5 YEARS
TO UPGRADE CRANE. THIS IS BEING DEFERRED UNTIL NEED
IS SHOWN.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CHESAPEAKE AND OHIO
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS: RAIL SPUR INTO THE FUEL HANDLING BUILDING IS COVERED
WITH ASPHALT. THEREFORE, THIS UNIT IS CONSIDERED
NOT TO HAVE RAIL ACCESS, ALTHOUGH IT COULD BE DONE
IF THE NEED AROSE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: PALO VERDE-1
UTILITY: ARIZONA PUBLIC SERVICE CO
NEAREST TOWN: WINTERSBURG, AR
NRC DOCKET NUMBER: 50-528
REACTOR TYPE: PWR
RATING:(a) 1270 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 150.
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 45.0
Pool Width, ft:(d) 16.0
Pool Length, ft:(d) 16.0

COMMENTS: UNITS 1,2 & 3 ARE IDENTICAL. OVERALL LENGTH OF FUEL ASSEMBLIES IS 178.25 INCHES, EXTRA LONG (COMBUSTION ENGINEERING SYSTEMS 80").

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: RESERVOIR
Barge Feasibility: NO

COMMENTS: ALTHOUGH A RAIL SPUR EXTENDS INTO THE CASK LOADING BAY, DECISION HAS BEEN MADE TO USE TRUCKS FOR CASK SHIPMENTS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PALO VERDE-2
UTILITY: ARIZONA PUBLIC SERVICE CO.
NEAREST TOWN: WINTERSBURG, AR
NRC DOCKET NUMBER: 50-529
REACTOR TYPE: PWR
RATING: (a) 1270 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 150.
Crane Height, ft: (c) 28.0

Pool Depth, ft: (d) 45.0
Pool Width, ft: (d) 16.0
Pool Length, ft: (d) 16.0

COMMENTS: SEE COMMENTS; PALO VERDE-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: RESERVOIR
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; PALO VERDE-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PALO VERDE-3
UTILITY: ARIZONA PUBLIC SERVICE CO
NEAREST TOWN: WINTERSUBRG, AR
NRC DOCKET NUMBER: 50-530
REACTOR TYPE: PWR
RATING:(a) 1270 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NONE
Cask Crane Capacity, tons: 150.
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 45.0
Pool Width, ft:(d) 16.0
Pool Length, ft:(d) 16.0

COMMENTS: SEE COMMENTS; PALO VERDE-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: RESERVOIR
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; PALO VERDE-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PEACH BOTTOM-2
UTILITY: PHILADELPHIA ELECTRIC COMPANY
NEAREST TOWN: PEACH BOTTOM, PA
NRC DOCKET NUMBER: 50-277
REACTOR TYPE: BWR
RATING:(a) 1051 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience: NLI-1/2
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 32.0

Pool Depth, ft:(d) 39.0
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 9.0

COMMENTS: A CAR PULLER IS USED TO MOVE CASK TRAILERS IN THE
FUEL HANDLING FACILITY.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 20 miles
Source of cooling water: SUSQUEHANNA RIVER
Barge Feasibility: NO

COMMENTS: THE LICENSEE STATES THE RAILROAD IS CURRENTLY NOT
SUITABLE FOR USE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PEACH BOTTOM-3
UTILITY: PHILADELPHIA ELECTRIC COMPANY
NEAREST TOWN: PEACH BOTTOM, PA
NRC DOCKET NUMBER: 50-278
REACTOR TYPE: BWR
RATING:(a) 1035 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience: NLI-1/2
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 32.0

Pool Depth, ft:(d) 39.0
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 9.0

COMMENTS: SEE COMMENTS; PEACH BOTTOM-2

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 20 miles
Source of cooling water: SUSQUEHANNA RIVER
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; PEACH BOTTOM-2.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PERRY-1
UTILITY: CLEVELAND ELECTRIC ILLUMINATING COMPANY
NEAREST TOWN: NORTH PERRY, OH
NRC DOCKET NUMBER: 50-440
REACTOR TYPE: BWR
RATING:(a) 1205 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: 1F-300 RAILCASK
Cask Experience: NONE
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 35.5

Pool Depth, ft:(d) 44.1
Pool Width, ft:(d) 13.0
Pool Length, ft:(d) 14.0

COMMENTS: HANDLING FACILITY DESIGN BASED UPON A 21' LONG 10'
DIA. 125 TON CASK WITH 24-32 BWR ASSEMBLIES

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: NORFOLK & WESTERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ERIE
Barge Feasibility: YES

COMMENTS: ON LAKE ERIE, HAVE TRANSFERRED VESSELS IN BY BARGE,
BUT EXPECT TO TRANSFER SPENT FUEL BY TRAIN.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PERRY-2
UTILITY: CLEVELAND ELECTRIC ILLUMINATING COMPANY
NEAREST TOWN: NORTH PERRY, OH
NRC DOCKET NUMBER: 50-441
REACTOR TYPE: BWR
RATING:(a) 1205 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: IF-300 RAILCASK
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 35.5

Pool Depth, ft:(d) 44.1
Pool Width, ft:(d) 13.0
Pool Length, ft:(d) 14.0

COMMENTS: SEE COMMENTS; PERRY-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: NORFOLK & WESTERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE ERIE
Barge Feasibility: YES

COMMENTS: SEE COMMENTS, PERRY-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PILGRIM-1
UTILITY: BOSTON EDISON COMPANY
NEAREST TOWN: PLYMOUTH, MASS
NRC DOCKET NUMBER: 50-293
REACTOR TYPE: BWR
RATING: (a) 670 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 100.
Crane Height, ft: (c) 23.

Pool Depth, ft: (d) 39.0
Pool Width, ft: (d) 7.0
Pool Length, ft: (d) 10.0

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: UNKNOWN
Distance from Rail Spur to Cask Loading Bay: 25 miles
Source of cooling water: CAPE COD BAY
Barge Feasibility: YES

COMMENTS: PLANT IS ON A NAVIGABLE WATERWAY

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: POINT BEACH-1
UTILITY: WISCONSIN ELECTRIC POWER COMPANY
NEAREST TOWN: TWO CREEKS, WIS
NRC DOCKET NUMBER: 50-266
REACTOR TYPE: PWR
RATING:(a) 495 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask:
Cask Experience: NLI-1/2
Cask Crane Capacity, tons: 65
Crane Height, ft:(c) 26.0

Pool Depth, ft:(d) 41.3
Pool Width, ft:(d) 7.8
Pool Length, ft:(d) 8.2

COMMENTS: CURRENTLY USING NLI-1/2. HAVE A 130 TON CRANE WHICH
HAS BEEN DERATED TO 65 TONS. NEW 125 TON CRANE EXPECTED
IN 1985. HAVE PERFORMED CASK DROP ANALYSIS ONLY
FOR A 26 TON LWT CASK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: GREEN BAY AND WESTERN
Distance from Rail Spur to Cask Loading Bay: 15 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS: NO EXISTING BARGE FACILITIES

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: POINT BEACH-2
UTILITY: WISCONSIN ELECTRIC POWER COMPANY
NEAREST TOWN: TWO CREEKS, WIS
NRC DOCKET NUMBER: 50-301
REACTOR TYPE: PWR
RATING:(a) 495 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask:
Cask Experience: NLI-1/2
Cask Crane Capacity, tons: 65.
Crane Height, ft:(c) 26.0

Pool Depth, ft:(d) 41.3
Pool Width, ft:(d) 7.8
Pool Length, ft:(d) 8.2

COMMENTS: SEE COMMENTS; POINT BEACH-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: GREEN BAY AND WESTERN
Distance from Rail Spur to Cask Loading Bay: 15 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; POINT BEACH-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PRAIRIE ISLAND-1
UTILITY: NORTHERN STATES POWER COMPANY
NEAREST TOWN: RED WING, MINN
NRC DOCKET NUMBER: 50-282
REACTOR TYPE: PWR
RATING:(a) 520 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 36.

Pool Depth, ft:(d) 41.5
Pool Width, ft:(d) 12.
Pool Length, ft:(d) 13.

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MILWAUKEE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: YES

COMMENTS: FROM MAR. 1 THROUGH APRIL 30, THERE ARE TRUCK PER
AXLE WEIGHT RESTRICTIONS BECAUSE OF ROAD FROST-HEAVE
CONCERNS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: PRAIRIE ISLAND-2
UTILITY: NORTHERN STATES POWER COMPANY
NEAREST TOWN: RED WING, MINN
NRC DOCKET NUMBER: 50-306
REACTOR TYPE: PWR
RATING:(a) 520 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 36.

Pool Depth, ft:(d) 41.5
Pool Width, ft:(d) 12.
Pool Length, ft:(d) 13.

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MILWAUKEE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; PRAIRIE ISLAND-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: QUAD CITIES-1
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: CORDOVA, ILL
NRC DOCKET NUMBER: 50-254
REACTOR TYPE: BWR
RATING:(a) 809 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: TN-9
Cask Experience: NFS-4,NLI-1/2
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 23.3

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 9.0

COMMENTS: BELIEVED TO BE ABLE TO HANDLE 1P-300 AND NLI-10/24
RAIL CASKS.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MILWAUKEE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: NO

COMMENTS: EVEN THOUGH THERE IS A RAILSPUR EXTENDING INTO THE
CASK LOADING BAY, THE COMPANY IS NOT SET UP TO HANDLE
A RAIL CASK AND WOULD ALMOST CERTAINLY USE A TRUCK
CASK. MAXIMUM WT. ON CASK PAD IS 100 TONS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: QUAD CITIES-2
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: CORDOVA, ILL
NRC DOCKET NUMBER: 50-265
REACTOR TYPE: BWR
RATING:(a) 809 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: TN-9
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 22.5

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 9.0

COMMENTS: SEE COMMENTS; QUAD-CITIES-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MILWAUKEE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; QUAD-CITIES-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: RANCHO SECO-1
UTILITY: SACRAMENTO MUNICIPAL UTILITY DISTRICT
NEAREST TOWN: CLAY STATION, CA
NRC DOCKET NUMBER: 50-312
REACTOR TYPE: PWR
RATING:(a) 913 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: SEE COMMENTS
Cask Experience:
Cask Crane Capacity, tons: 185.
Crane Height, ft:(c) 40.

Pool Depth, ft:(d) 44.5
Pool Width, ft:(d) 10.5
Pool Length, ft:(d) 12.5

COMMENTS: RANCHO SECO WAS BUILT ASSUMING A 100 TON CASK 6'8"
DIA. & 17' LONG. THEREFORE THE PLANT SHOULD BE ABLE
TO HANDLE THIS SIZE CASK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: FOLSOM CANAL
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: RIVER BEND-1
UTILITY: GULF STATES UTILITIES
NEAREST TOWN: ST. FRANCISVILLE, LA
NRC DOCKET NUMBER: 50-458
REACTOR TYPE: BWR
RATING:(a) 944 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 43.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: THE FACILITY IS BASED UPON A CASK OF A 7' DIAMETER,
18' LONG AND A MAXIMUM LOAD WEIGHT OF APPROX. 100
TONS. THE CASK IS EXPECTED TO ACCOMMODATE ABOUT 18
FUEL BUNDLES.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: UNKNOWN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: YES

COMMENTS: THE FACILITY IS EQUIPPED TO SHIP TO AND FROM THE SITE
ON A SPECIALLY DESIGNED RAIL CAR. SHIPPING BY BARGE
IS ANOTHER POSSIBILITY, BUT THIS HASN'T BEEN EVALUATED.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: ROBINSON-2
UTILITY: CAROLINA POWER AND LIGHT CO.
NEAREST TOWN: HARTSVILLE, SC
NRC DOCKET NUMBER: 50-261
REACTOR TYPE: PWR
RATING:(a) 665 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: IF-300
Cask Experience: IF-300
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 37.0

Pool Depth, ft:(d) 40.7
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 9.0

COMMENTS: IN ORDER TO MOVE THE CASK IN AND OUT OF THE FUEL STORAGE
AREA, A ROOF PANEL AND A WALL PANEL MUST BE REMOVED.
THESE PANELS MUST BE IN PLACE DURING CASK LOADING/UNLOADING
OPERATIONS

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SEABOARD COASTLINE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ROBINSON IMPOUNDMENT
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well

PLANT NAME: SALEM-1
UTILITY: PUBLIC SERVICE ELECTRIC AND GAS CO.
NEAREST TOWN: SALEM, NJ
NRC DOCKET NUMBER: 50-272
REACTOR TYPE: PWR
RATING: (a) 1079 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NAC-1, NL1 1/2
Cask Experience:
Cask Crane Capacity, tons: 110.
Crane Height, ft: (c) 30.5

Pool Depth, ft: (d) 45.0
Pool Width, ft: (d) 12.0
Pool Length, ft: (d) 12.0

COMMENTS: SMALL COVER (9'X9') ON DECONTAMINATION PIT BUT THIS
COULD BE ENLARGED TO 19.5' X 20' BY REMOVAL OF A
CHECKERBOARD PLATE. RECEIVING HATCH IS 30'X10'

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 15 miles
Source of cooling water: DELAWARE RIVER
Barge Feasibility: YES

COMMENTS: TURBINE ROTORS WERE BROUGHT TO SITE RECENTLY BY BARGE

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: SALEM-2
UTILITY: PUBLIC SERVICE ELECTRIC AND GAS CO.
NEAREST TOWN: SALEM, NJ
NRC DOCKET NUMBER: 50-311
REACTOR TYPE: PWR
RATING: (a) 1106 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NAC-1, NLI 1/2
Cask Experience:
Cask Crane Capacity, tons: 110.
Crane Height, ft: (c) 30.5

Pool Depth, ft: (d) 45.0
Pool Width, ft: (d) 12.0
Pool Length, ft: (d) 12.0

COMMENTS: SEE COMMENTS; SALEM-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 15 miles
Source of cooling water: DELAWARE RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; SALEM-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SAN ONOFRE-1
UTILITY: SOUTHERN CALIFORNIA EDISON COMPANY
NEAREST TOWN: SAN CLEMENTE, CA
NRC DOCKET NUMBER: 50-206
REACTOR TYPE: PWR
RATING:(a) 387 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) C
Preferred Cask: IF-300, NAC-1
Cask Experience: NAC-1
Cask Crane Capacity, tons: 100.
Crane Height, ft:(c) 65.0

Pool Depth, ft:(d) 40.0
Pool Width, ft:(d) 11.0
Pool Length, ft:(d) 11.0

COMMENTS: DID SOME PARTIAL SHIPMENTS FROM UNIT 1 IN 1981.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: ATCHISON, TOPEKA & SANTA FE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: PACIFIC OCEAN
Barge Feasibility: NO

COMMENTS: USED TO BE RAIL SPUR INTO CASK LOADING BAY. HAS BEEN
TORN UP AND ASPHALTED OVER. NOT LIKELY TO BE ANY
WAY FOR A BARGE TO LAND.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well

PLANT NAME: SAN ONOFRE-2
UTILITY: SOUTHERN CALIFORNIA EDISON COMPANY
NEAREST TOWN: SAN CLEMENTE, CA
NRC DOCKET NUMBER: 50-361
REACTOR TYPE: PWR
RATING:(a) 1100 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) C
Preferred Cask: UNKNOWN
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 32.0

Pool Depth, ft:(d) 47.0
Pool Width, ft:(d) 21.0
Pool Length, ft:(d) 23.0

COMMENTS: SEE COMMENTS; SAN ONOFRE-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: ATCHISON, TOPEKA & SANTA FE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: PACIFIC OCEAN
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; SAN ONOFRE-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SAN ONOFRE-3
UTILITY: SOUTHERN CALIFORNIA EDISON CO.
NEAREST TOWN: SAN CLEMENTE, CA
NRC DOCKET NUMBER: 50-362
REACTOR TYPE: PWR
RATING: (a) 1100 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) C
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft: (c) 32.0

Pool Depth, ft: (d) 47.0
Pool Width, ft: (d) 21.0
Pool Length, ft: (d) 23.0

COMMENTS: SEE COMMENTS; SAN ONOFRE-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: ATCHISON, TOPEKA AND SANTA FE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: PACIFIC OCEAN
Barge Feasibility:

COMMENTS: SEE COMMENTS; SAN ONOFRE-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SEABROOK-1
UTILITY: PUBLIC SERVICE CO. OF NEW HAMPSHIRE
NEAREST TOWN: SEABROOK, NH
NRC DOCKET NUMBER: 50-443
REACTOR TYPE: PWR
RATING:(a) 1150 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 39.

Pool Depth, ft:(d) 46.
Pool Width, ft:(d) 11.
Pool Length, ft:(d) 11.

COMMENTS: PLANT SHOULD BE ABLE TO HANDLE ANYTHING UP TO AN 8'
DIAMETER CASK

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BOSTON AND MAINE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ATLANTIC OCEAN
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SEABROOK-2
UTILITY: PUBLIC SERVICE CO. OF NEW HAMPSHIRE
NEAREST TOWN: SEABROOK, NH
NRC DOCKET NUMBER: 50-444
REACTOR TYPE: PWR
RATING:(a) 1150 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 39.

Pool Depth, ft:(d) 46.
Pool Width, ft:(d) 11.
Pool Length, ft:(d) 11.

COMMENTS: SEE COMMENTS; SEABROOK-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BOSTON AND MAINE
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ATLANTIC OCEAN
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SEQUOYAH-1
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: DAISY, TENN
NRC DOCKET NUMBER: 50-327
REACTOR TYPE: PWR
RATING:(a) 1148 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: SEE COMMENTS
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 32.5

Pool Depth, ft:(d) 25.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: PLANTS BELIEVED CAPABLE OF HANDLING ALL TYPES OF CASKS.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAY SYSTEM
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: TENNESSEE RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SEQUOYAH-2
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: DAISY, TENN
NRC DOCKET NUMBER: 50-328
REACTOR TYPE: PWR
RATING:(a) 1148 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: SEE COMMENTS
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 32.5

Pool Depth, ft:(d) 25.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: SEE COMMENTS; SEQUOYAH-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAY SYSTEM
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: TENNESSEE RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; SEQUOYAH-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well

PLANT NAME: SHOREHAM
UTILITY: LONG ISLAND LIGHTING COMPANY
NEAREST TOWN: BROOKHAVEN, NY
NRC DOCKET NUMBER: 50-322
REACTOR TYPE: BWR
RATING:(a) 819 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TRUCK
Cask Experience: NO
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 26.3

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 4.0
Pool Length, ft:(d) 5.7*

COMMENTS: CASK POOL IS A 73 SQ.FT. QUADRANT OF THE SPENT FUEL POOL. PICTURE A RECTANGLE WITH A TRIANGLE TAKEN OUT OF ONE CORNER, WITH BOTTOM LENGTH=10.5', LEFT SIDE WIDTH = 7.8', TOP ADJOINING LEFT CORNER=5.7', RIGHT SIDE ADJOINING LOWER RIGHT CORNER=4.0'

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: LONG ISLAND R R
Distance from Rail Spur to Cask Loading Bay: 10 miles
Source of cooling water: LONG ISLAND SOUND
Barge Feasibility: YES

COMMENTS: HAVE HAD A TRAILER TRUCK IN BUILDING WHERE LOADING WOULD OCCUR. HAVE A DOCK ACCESSIBLE TO BARGE AND RECENTLY USED.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SOUTH TEXAS PROJ-1
UTILITY: HOUSTON LIGHTING AND POWER COMPANY
NEAREST TOWN: PALACIUS, TX
NRC DOCKET NUMBER: 50-498
REACTOR TYPE: PWR
RATING: (a) 1250 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 150.
Crane Height, ft: (c) 29.0

Pool Depth, ft: (d) 41.0
Pool Width, ft: (d) 10.0
Pool Length, ft: (d) 10.0

COMMENTS: CASK IS ALSO HANDLED BY A 145 TON CRANE OVER THE SPENT
FUEL POOL. A DRY SPENT FUEL LOADING SYSTEM IS
USED. PLANT USES EXTRA LONG FUEL ASSEMBLIES

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MISSOURI PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: COLORADO RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: SOUTH TEXAS PROJ-2
UTILITY: HOUSTON LIGHTING AND POWER COMPANY
NEAREST TOWN: PALACIOUS, TX
NRC DOCKET NUMBER: 50-499
REACTOR TYPE: PWR
RATING:(a) 1250 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 150.
Crane Height, ft:(c) 29.0

Pool Depth, ft:(d) 21.0
Pool Width, ft:(d) 10.0
Pool Length, ft:(d) 10.0

COMMENTS: SEE COMMENTS; SOUTH TEXAS PROJ.-1

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MISSOURI PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: COLORADO RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: ST. LUCIE-1
UTILITY: FLORIDA POWER AND LIGHT CO.
NEAREST TOWN: HUTCHINSON ISLAND, F
NRC DOCKET NUMBER: 50-335
REACTOR TYPE: PWR
RATING:(a) 890 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: TRUCK-SING
Cask Experience:
Cask Crane Capacity, tons: 105.
Crane Height, ft:(c) 46.0

Pool Depth, ft:(d) 41.2
Pool Width, ft:(d) 10.0
Pool Length, ft:(d) 12.0

COMMENTS: TECH SPECS LIMIT CRANE TO 25 TON LOAD.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: FLORIDA EAST COAST
Distance from Rail Spur to Cask Loading Bay: 5 miles
Source of cooling water: ATLANTIC OCEAN
Barge Feasibility: YES

COMMENTS: NO RAIL ACCESS TO HUTCHINSON ISLAND, BUT GOOD ACCESS
BY BARGE ON INTERCOASTAL WATERWAY. HAVE HAD TRUCKS
ON ISLAND WIEGHING ABOUT 80,000 LBS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: ST. LUCIE-2
UTILITY: FLORIDA POWER AND LIGHT CO.
NEAREST TOWN: HUTCHINSON ISLAND, F
NRC DOCKET NUMBER: 50-389
REACTOR TYPE: PWR
RATING:(a) 802 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: FLEXIBLE
Cask Experience: NONE
Cask Crane Capacity, tons: 150.
Crane Height, ft:(c) 46.3

Pool Depth, ft:(d) 41.2
Pool Width, ft:(d) 11.6
Pool Length, ft:(d) 12.5

COMMENTS: 150 TON CRANE PROOF-TESTED AT 125% OF CAPACITY. COMPLETELY
ISOLATED CASK AREA. LOADING POOL DIFFERS IN UNIT
2 FROM UNIT 1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: FLORIDA EAST COAST
Distance from Rail Spur to Cask Loading Bay: 5 miles
Source of cooling water: ATLANTIC OCEAN
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; ST. LUCIE-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SURRY-1
UTILITY: VIRGINIA ELECTRIC POWER COMPANY
NEAREST TOWN: GRAVEL NECK, VA
NRC DOCKET NUMBER: 50-280
REACTOR TYPE: PWR
RATING:(a) 775 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: TN-8
Cask Experience: TN-8
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 29.0

Pool Depth, ft:(d) 40.5
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: UNITS 1&2 HAVE SINGLE ACCESS DOORS WHICH MUST BE CLOSED
DURING CASK OPERATIONS. MAY BE SHIPPING WITH TN-9
IN NEAR FUTURE.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: NORTH FORK AND WESTERN
Distance from Rail Spur to Cask Loading Bay: 26 miles
Source of cooling water: JAMES RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SURRY-2
UTILITY: VIRGINIA ELECTRIC POWER COMPANY
NEAREST TOWN: GRAVEL NECK, VA
NRC DOCKET NUMBER: 50-281
REACTOR TYPE: PWR
RATING:(a) 775 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: TN-8
Cask Experience: TN-8
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 29.0

Pool Depth, ft:(d) 40.5
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 12.0

COMMENTS: SEE COMMENTS; SURRY-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: NORTH FORK AND WESTERN
Distance from Rail Spur to Cask Loading Bay: 26 miles
Source of cooling water: JAMES RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: SUSQUEHANNA-1
UTILITY: PENNSYLVANIA POWER AND LIGHT CO.
NEAREST TOWN: BERWICK, PA
NRC DOCKET NUMBER: 50-387
REACTOR TYPE: BWR
RATING:(a) 1050 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: NONE
Cask Experience: NO
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 14.0

COMMENTS: UNITS 1 & 2 EACH HAVE THEIR OWN POOL, BUT SHARE CASK
HANDLING. POOL DIMENSIONS ARE 45' X 30', NOTHING
IS IN POOLS NOW, UNIT 1 IS STILL ON INITIAL CYCLE.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SUSQUEHANNA RIVER
Barge Feasibility: NO

COMMENTS: UNSURE OF SIZE LIMITS ON SUSQUEHANNA RIVER; SOME THINGS
WERE BROUGHT IN BY BOAT DURING CONSTRUCTION. NEW
BRIDGE ON ROADS, PROBABLY IMPLIES NO UNUSUAL WEIGHT
LIMITS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: SUSQUEHANNA-2
UTILITY: PENNSYLVANIA POWER AND LIGHT CO.
NEAREST TOWN: BERWICK, PA
NRC DOCKET NUMBER: 50-388
REACTOR TYPE: BWR
RATING:(a) 1050 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask: NO
Cask Experience: NO
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 28.0

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 9.0
Pool Length, ft:(d) 14.0

COMMENTS: SEE COMMENTS; SUSQUEHANNA-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SUSQUEHANNA RIVER
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; SUSQUEHANNA-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: THREE MILE ISLAND-1
UTILITY: GPU NUCLEAR
NEAREST TOWN: LONDONDERRY, TWP, PA
NRC DOCKET NUMBER: 50-289
REACTOR TYPE: PWR
RATING: (a) 776 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NLI-10/24
Cask Experience: NONE
Cask Crane Capacity, tons: 110
Crane Height, ft: (c) 31.5

Pool Depth, ft: (d) 44.5
Pool Width, ft: (d) 7.33
Pool Length, ft: (d) 7.90

COMMENTS: DESIGN BASIS FOR POOL IS NLI-10/24 100 TON CASK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONRAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SUSQUEHANNA RIVER
Barge Feasibility: NO

COMMENTS: RIVER IS TOO SHALLOW FOR BARGE WORK.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: THREE MILE ISLAND-2
UTILITY: GPU NUCLEAR
NEAREST TOWN: LONDONDERRY TWP, PA
NRC DOCKET NUMBER: 50-320
REACTOR TYPE: PWR
RATING:(a) 926 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NUPAC-125B RAIL
Cask Experience:
Cask Crane Capacity, tons: 110.
Crane Height, ft:(c) 31.5

Pool Depth, ft:(d) 44.5
Pool Width, ft:(d) 7.33
Pool Length, ft:(d) 7.90

COMMENTS: DEWATERING STATION OCCUPIES FUEL POOL ORIGINALLY INTENDED
FOR CASK TRANSFER. LOAD DROP ANALYSIS FOR 15 TON
MAX. SO FAR BECAUSE OF LOCATION OF ELECTRICAL SAFETY
SYSTEM.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CONSOLIDATED RAIL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SUSQUEHANNA RIVER
Barge Feasibility: NO

COMMENTS: SEE COMMENTS; THREE MILE ISLAND-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: TROJAN
UTILITY: PORTLAND GENERAL ELECTRIC COMPANY
NEAREST TOWN: PRESCOTT, ORE
NRC DOCKET NUMBER: 80-344
REACTOR TYPE: PWR
RATING: (a) 1080 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft: (c) 30.0

Pool Depth, ft: (d) 43.5
Pool Width, ft: (d) 9.0
Pool Length, ft: (d) 12.0

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: BURLINGTON NORTHERN
Distance from Rail Spur to Cask Loading Bay: 2 miles
Source of cooling water: COLUMBIA RIVER
Barge Feasibility: YES

COMMENTS: POTENTIAL RAILCAR LENGTH RESTRICTION ON RAILSPUR,
HAS NOT BEEN EVALUATED. LOCATED ON COLUMBIA RIVER.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: TURKEY POINT-3
UTILITY: FLORIDA POWER AND LIGHT CO.
NEAREST TOWN: FLORIDA CITY, FL
NRC DOCKET NUMBER: 50-250
REACTOR TYPE: PWR
RATING:(a) 646 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: LWT
Cask Experience: NACiNFS4 NLI1/2
Cask Crane Capacity, tons: 105.
Crane Height, ft:(c) 9.4

Pool Depth, ft:(d) 40.0
Pool Width, ft:(d) 9.8
Pool Length, ft:(d) 10.1

COMMENTS: TURKEY POINT UNITS ARE LIMITED BY LICENSE TO THE USE
OF SINGLE ASSEMBLY CASKS WITH A 25-TON CASK WEIGHT
LIMIT.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: FLORIDA EAST COAST RR
Distance from Rail Spur to Cask Loading Bay: 10 miles
Source of cooling water: BISCAYNE BAY/ATLANTIC
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: TURKEY POINT-4
UTILITY: FLORIDA POWER AND LIGHT CO.
NEAREST TOWN: FLORIDA CITY, FL
NRC DOCKET NUMBER: 50-251
REACTOR TYPE: PWR
RATING: (a) 646 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: LWT
Cask Experience: NAC1NFS4 NLI1/2
Cask Crane Capacity, tons: 105.
Crane Height, ft: (c) 9.4

Pool Depth, ft: (d) 40.0
Pool Width, ft: (d) 9.8
Pool Length, ft: (d) 10.1

COMMENTS: SEE COMMENTS; TURKEY POINT-3

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: FLORIDA EAST COAST
Distance from Rail Spur to Cask Loading Bay: 10 miles
Source of cooling water: BISCAYNE BAY/ATLANTIC
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: VERMONT YANKEE
UTILITY: VERMONT YANKEE NUCLEAR POWER CORP.
NEAREST TOWN: VERNON, VT
NRC DOCKET NUMBER: 50-271
REACTOR TYPE: BWR
RATING:(a) 514 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience: NLI-12
Cask Crane Capacity, tons: 110.
Crane Height, ft:(c) 21.5

Pool Depth, ft:(d) 38.8
Pool Width, ft:(d) 7.0
Pool Length, ft:(d) 7.0

COMMENTS: PLANT DESIGNED FOR A IF-300 CASK- LARGEST PROBLEM
IS PROBABLY DIMENSIONS, LOADING AREA TO PUT DOWN
CASK IS ONLY 7'X 7', ALTHOUGH THIS PROBLEM CAN PROBABLY
BE ELIMINATED.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: VERMONT CENTRAL
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: CONNECTICUT RIVER
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: VIRGIL C. SUMMER 1
UTILITY: SOUTH CAROLINA ELECTRIC AND GAS CO.
NEAREST TOWN: PARR, SC
NRC DOCKET NUMBER: 50-395
REACTOR TYPE: PWR
RATING:(a) 900 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience: NONE
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 31.5

Pool Depth, ft:(d) 39.0
Pool Width, ft:(d) 13.0
Pool Length, ft:(d) 13.0

COMMENTS: IT IS BELIEVED BY UTILITY PERSONNEL THAT THIS PLANT
CAN HANDLE ANY CASK MADE SO FAR, INCLUDING ALL RAIL
CASKS (NLI 10-24, ETC). PLANT IS DESIGNED FOR 100
TON CASK.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water:
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: VOGTLE-1
UTILITY: GEORGIA POWER COMPANY
NEAREST TOWN: WAYNESBORO, GA
NRC DOCKET NUMBER: 50-424
REACTOR TYPE: PWR
RATING:(a) 1110 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) B
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125
Crane Height, ft:(c) 40.0

Pool Depth, ft:(d) 46.4
Pool Width, ft:(d) 13.4
Pool Length, ft:(d) 13.4

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CENTRAL OF GEORGIA RAILROAD
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SAVANNAH RIVER
Barge Feasibility: YES

COMMENTS: PLANS ARE FOR DIRECT RAIL ACCESS. SKEPTICISM RE: BARGE
TRANSPORT, ALTHOUGH 9 FOOT CHANNEL EXISTS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: VOGTLE-2
UTILITY: GEORGIA POWER COMPANY
NEAREST TOWN: WAYNESBORO, GA
NRC DOCKET NUMBER: 50-425
REACTOR TYPE: PWR
RATING: (a) 1110 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) B
Preferred Cask:
Cask Experience: NONE
Cask Crane Capacity, tons: 125
Crane Height, ft: (c) 40.0

Pool Depth, ft: (d) 46.4
Pool Width, ft: (d) 13.4
Pool Length, ft: (d) 13.4

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CENTRAL OF GEORGIA RAILROAD
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: SAVANNAH RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; VOGTLE-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: WATERFORD-3
UTILITY: LOUISIANA POWER AND LIGHT
NEAREST TOWN: TAFT, LA
NRC DOCKET NUMBER: 50-382
REACTOR TYPE: PWR
RATING:(a) 1104 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 29.5

Pool Depth, ft:(d) 45.5
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 13.0

COMMENTS: DERATED CRANE CAPACITY-70.5 TONS

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MISSOURI PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: MISSISSIPPI RIVER
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: WATTS BAR-1
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: SPRING CITY, TENN
NRC DOCKET NUMBER: 50-390
REACTOR TYPE: PWR
RATING: (a) 1177 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) A
Preferred Cask: RAIL OR TRUCK
Cask Experience: NO
Cask Crane Capacity, tons: 125
Crane Height, ft: (c)

Pool Depth, ft: (d) 50.
Pool Width, ft: (d) 8.1
Pool Length, ft: (d) 8.1

COMMENTS: PLANT IS DESIGNED FOR UP TO A 100 TON CASK. THE CASK
WASHDOWN AREA HAS A ROTATING FLOOR WITH A 8' 1" DIAMETER.
LIMITING AREA MAY BE THE DISTANCE BETWEEN THE CRANE
OPERATING CHAIR AND THE CRANEHOOK (CASK MUST BE HORIZONTALLY
POSITIONED HERE).

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAILWAY SYSTEM
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: TENNESSEE RIVER
Barge Feasibility: YES

COMMENTS: DO NOT HAVE A BARGE LOADING FACILITY BUT ARE ON A
LARGE WATERWAY (TENNESSEE RIVER ON LAKE CHICOMAUGUA)
AND BROUGHT IN CONSTRUCTION MATERIALS BY BARGE.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: WATTS BAR-2
UTILITY: TENNESSEE VALLEY AUTHORITY
NEAREST TOWN: SPRING CITY, TENN
NRC DOCKET NUMBER: 50-391
REACTOR TYPE: PWR
RATING:(a) 1177 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) A
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c)

Pool Depth, ft:(d) 50.
Pool Width, ft:(d) 8.1
Pool Length, ft:(d) 8.1

COMMENTS: SEE COMMENTS; WATTS BAR-1.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: SOUTHERN RAIL SYSTEM
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: TENNESSEE RIVER
Barge Feasibility: YES

COMMENTS: SEE COMMENTS; WATTS BAR-1.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: WNP-1
UTILITY: WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NEAREST TOWN: RICHLAND, WA
NRC DOCKET NUMBER: 50-460
REACTOR TYPE: PWR
RATING:(a) 1250 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience: NONE
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c)

Pool Depth, ft:(d) 47.3
Pool Width, ft:(d) 9.5
Pool Length, ft:(d) 9.5

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: GOVT. RR
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: COLUMBIA RIVER
Barge Feasibility: YES

COMMENTS: GOVT. RAILROAD CONNECTING WITH BURLINGTON NORTHERN
AND UNION PACIFIC.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: WNP-2
UTILITY: WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NEAREST TOWN: RICHLAND, WA
NRC DOCKET NUMBER: 50-397
REACTOR TYPE: BWR
RATING:(a) 1100 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask: NONE
Cask Experience: NO
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c) 28.9

Pool Depth, ft:(d) 39.0
Pool Width, ft:(d) 8.0
Pool Length, ft:(d) 8.0

COMMENTS: CASK WELL IS AN 8' OUTSIDE DIAMETER SHAFT IN THE SOUTHEAST
OF THE SPENT FUEL POOL.

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: GOVT RR
Distance from Rail Spur to Cask Loading Bay: .25 miles
Source of cooling water: COLUMBIA RIVER
Barge Feasibility: YES

COMMENTS: GOVT. RR CONNECTS WITH BURLINGTON NORTHERN AND UNION
PACIFIC. RAILSPUR DOES NOT EXTEND INTO CASK LOADING
BAY.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Fail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: WNP-3
UTILITY: WASHINGTON PUBLIC POWER SUPPLY SYSTEM
NEAREST TOWN: SATSOP, WA
NRC DOCKET NUMBER: 50-508
REACTOR TYPE: PWR
RATING:(a) 1240 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience:
Cask Crane Capacity, tons: 125.
Crane Height, ft:(c)

Pool Depth, ft:(d) 45.0
Pool Width, ft:(d) 12.0
Pool Length, ft:(d) 13.0

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: BURLINGTON NORTHERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: CHEHALIS RIVER
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: WOLF CREEK
UTILITY: KANSAS GAS AND ELECTRIC COMPANY
NEAREST TOWN: BURLINGTON, KANS
NRC DOCKET NUMBER: 50-482
REACTOR TYPE: PWR
RATING: (a) 1128 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) NO
Preferred Cask: NONE SPECIFIED
Cask Experience:
Cask Crane Capacity, tons: 150.
Crane Height, ft: (c) 33.6

Pool Depth, ft: (d) 46.5
Pool Width, ft: (d) 14.0
Pool Length, ft: (d) 14.0

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: MISSOURI PACIFIC
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: ARTIFICIAL COOLING LAKE
Barge Feasibility: NO

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
(b) A indicates common pool shared by two reactors
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
(c) The distance from the operating deck to the bottom of the crane hook at its uppermost position.
(d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: YANKEE
UTILITY: YANKEE ATOMIC ELECTRIC COMPANY
NEAREST TOWN: ROWE, MASS
NRC DOCKET NUMBER: 50-029
REACTOR TYPE: PWR
RATING:(a) 185 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool:(b) NO
Preferred Cask:
Cask Experience: WECX-300
Cask Crane Capacity, tons: 35.0
Crane Height, ft:(c) 35.5

Pool Depth, ft:(d) 37.0
Pool Width, ft:(d) 5.0
Pool Length, ft:(d) 5.0

COMMENTS: YANKEE IS HAVING SERIOUS PROBLEMS WITH THEIR CRANE,
WHICH HAS BEEN DERATED TO 35 TONS FROM 60 TONS MUST
MAKE MODIFICATIONS BEFORE LOADING. MAY GET SPECIAL
ONE-TIME PERMIT TO LOAD. MAX. WIDTH & LENGTH LIMITED
BY 5' X 5' SETDOWN AREA; POOL MAY BE BIGGER

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: NO
Nearest railroad: BOSTON-MAINE RR
Distance from Rail Spur to Cask Loading Bay: 25 miles
Source of cooling water: DEERFIELD RIVER
Barge Feasibility: NO

COMMENTS: YANKEE DID HAVE A RAILSPUR BUT IT HAS SINCE BEEN TAKEN
OUT AND CANNOT BE REPLACED. ALSO, AREA AROUND ROWE,
MA LOCATION IS HILLY, MAY OR MAY NOT BE A PROBLEM
FOR TRUCKS.

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: NO
Rail: NO

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the
crane hook at its uppermost position.
- (d) Refers to the respective usable dimension (i.e., length,
width, or depth) of the cask loading well.

PLANT NAME: ZION-1
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: ZION, ILL
NRC DOCKET NUMBER: 50-295
REACTOR TYPE: PWR
RATING: (a) 1050 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) A
Preferred Cask: NAC-1 NFS-4
Cask Experience: NLI-1/2
Cask Crane Capacity, tons: 125
Crane Height, ft: (c) 26

Pool Depth, ft: (d) 40.5
Pool Width, ft: (d) 8.3
Pool Length, ft: (d) 8.3

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHICAGO & NORTHWESTERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position
- (d) Refers to the respective usable dimension (i.e., length, width, or depth) of the cask loading well.

PLANT NAME: ZION-2
UTILITY: COMMONWEALTH EDISON COMPANY
NEAREST TOWN: ZION, ILL
NRC DOCKET NUMBER: 50-304
REACTOR TYPE: PWR
RATING: (a) 1050 MWe

IN PLANT HANDLING PARAMETERS:

Share Pool: (b) A
Preferred Cask: NAC-1 / NFS-4
Cask Experience: NLI-1/2
Cask Crane Capacity, tons: 125.
Crane Height, ft: (c) 26.

Pool Depth, ft: (d) 40.5
Pool Width, ft: (d) 8.3
Pool Length, ft: (d) 8.3

COMMENTS:

RAIL/BARGE ACCESS DATA:

Rail Spur on Site: YES
Nearest railroad: CHICAGO & NORTHWESTERN
Distance from Rail Spur to Cask Loading Bay: 0 miles
Source of cooling water: LAKE MICHIGAN
Barge Feasibility: YES

COMMENTS:

CURRENT CASK HANDLING CAPABILITIES:

Legal Truck: YES
Overweight Truck: YES
Rail: YES

- (a) Spent Fuel Storage Requirements, DOE/RL-84-1, May 1984.
- (b) A indicates common pool shared by two reactors.
B indicates pools connected by transfer canal.
C indicates pools connected by cask transfer.
- (c) The distance from the operating deck to the bottom of the crane hook at its uppermost position
- (d) Refers to the respective usable dimension (i.e., length,

APPENDIX B

CHARACTERISTICS OF EXISTING SPENT FUEL SHIPPING CASKS

APPENDIX B

CHARACTERISTICS OF EXISTING SPENT FUEL SHIPPING CASKS

Three companies are currently providing spent fuel transportation casks: Nuclear Assurance Corp. (NAC), Transnuclear Inc. (TN), and General Electric Co. (GE). The characteristics of the shipping casks provided by each of these companies are summarized in Table B.1. Additional information regarding these casks are presented in the following subsections.

TABLE B.1. Selected Characteristics of Existing Spent Fuel Shipping Casks

Cask Designation	Primary Transport Mode	Fuel Assemblies Capacity PWR/BWR	Cask Empty Weight (kg)	External Cask Dimensions (m)	Number of Casks Completed	Number Currently Certified
NAC-1	LWT	1/2	22,700	1.27D x 5.44	5	0
NFS-4	LWT	1/2	22,700	1.27D x 5.44	2	0
NLI-1/2	LWT	1/2	21,600	1.20D x 4.96	5	5
NLI-10/24	Rail	10/24	82,700	2.44D x 5.19	2	0
TN-8L	OWT	3/0	36,000	1.72D x 5.52	2	2
TN-9	OWT	0/7	36,000	1.72D x 5.76	2	2
IF-300	Rail	7/18	63,600	1.63D x 5.33	4	4

- (a) Source of cask characteristics data; NUREG-0383 (NRC 1981b). Cask inventory data is from PNL-5284 (Daling 1984).
- (b) LWT = legal-weight truck and OWT = overweight truck.
- (c) NAC-1 and NFS-4 are of the same design.
- (d) Includes two NAC-1 casks that are owned by a utility.
- (e) There are currently no internal baskets for these casks; therefore they are currently considered to be unavailable.
- (f) Includes one TN-9 that is owned by a utility.
- (g) Includes one IF-300 that is owned by a utility.

Nuclear Assurance Corp.

NAC supplies a variety of legal-weight truck and rail shipping casks. Their truck cask fleet includes the NFS-4, NAC-1 (same design as the NFS-4), and the NLI-1/2 shipping casks. The rail cask supplied by NAC is the NLI-10/24 model.

NAC either owns or possesses long-term leases on all of their equipment listed on Table B.1. All seven of the NAC-1 and NFS-4 casks were temporarily suspended from use by the NRC in 1979. Two of the NAC-1 casks (one owned by NAC and one owned by a utility) were declared not licensed pending reapproval of their Safety Analysis Report for Packaging (SARP). These casks were modified slightly by the addition of some copper patches during the manufacturing process and the NRC had not reviewed and approved the modification. As a result, these two casks cannot be used for spent fuel shipments until NRC has reviewed and approved updated SARPs.

The remaining NAC-1 and NFS-4 shipping casks cannot be used at this time for spent fuel shipments because of an agreement between NRC and NAC. NAC has agreed not to use these casks because the NRC believes there is a potential for buckling of the internal cavity that could cause the lead shielding to change position. This could cause the radiation shielding to lose effectiveness at some location on the casks. Subsequent inspections of the casks showed no evidence of buckling or loss of ovality. However, NRC has asked NAC not to use these casks for spent fuel shipments pending further analyses. According to NAC, all of the NAC-1 and NFS-4 shipping casks will ultimately be recertified.

NAC possesses long-term lease agreements for the NLI-10/24 rail casks and NLI-1/2 LWT casks. These casks were previously supplied by NL Industries, Inc., who leased the casks to NAC in 1980. All five of the NLI-1/2 casks are currently certified and operational. Both completed NLI-10/24 casks are currently not available because of a lack of internal baskets. New baskets would have to be fabricated for these casks to become operational. If new baskets are fabricated using the original design approved by NRC, little difficulty is expected on reactivating the casks. If the new baskets are designed differently, analysis and testing of the new design will be required. Submission of the safety analysis of a new basket design and subsequent review and approval by the NRC is also required.

Transnuclear, Inc.

TN supplies the TN-8L and TN-9 OWT shipping casks. The TN-8L is designed to transport three PWR fuel assemblies; the TN-9 has a design capacity of seven BWR assemblies. As shown in Table B.1, there are currently two TN-8L and two TN-9 casks in this country. One of the TN-9 shipping casks has been sold to Commonwealth Edison. The other three casks are owned by TN and are certified and operational.

General Electric Co.

G.E. supplies the IF-300 rail shipping system. Currently there are four completed IF-300 casks. One is owned by a utility and three are owned by G.E. as shown in Table B.1. All of these casks are currently restricted to operating with dry internal cavities at reduced thermal capacities. Consequently, only long-cooled spent fuel may be shipped in the IF-300 as a full load. This reduces the flexibility of using these casks. However, since most of the fuel expected to be shipped in the future has cooled for extended periods, this limitation is not anticipated to restrict the use of the cask in most instances.

As shown on Table B.1, the IF-300 is a substantially smaller rail cask system than the NLI-10/24 (i.e., the IF-300 has a smaller diameter and weighs less). For this reason, the IF-300 can be considered as a "light" rail cask and the NLI-10/24 as a "heavy" rail cask. Due to this difference in size, some plants were determined to be capable of handling the IF-300 but not the NLI-10/24. These plants were noted in Section 3.0.

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