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THE UNITED STATES SENATE ENERGY & NATURAL RESOURCES COMMITTEE

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INTRODUCTION

My name is Russell A. Mellor and I am President and CEO of both the Yankee Atomic Electric Company and the Connecticut Yankee Atomic Power Company. Both of these organizations are single asset companies with permanently shutdown nuclear power reactors located in New England – one in Massachusetts and one in Connecticut.

I would like to thank the Chairman and Committee for the opportunity to present our views, as well for your efforts during these past several Congresses to pass legislation addressing the significant spent nuclear fuel storage problem confronting the Nation.

I am here today to address the implications of the recent decision of the U.S. Court of Appeals for the Federal Circuit affirming the U.S. Court of Federal Claims' rulings in the Yankee companies' spent fuel litigation. In addition to my two companies, the Maine Yankee Atomic Power Company is also part of that litigation, and my comments are generally applicable to Maine Yankee as well. These decisions demonstrate the federal government's liability for potentially hundred's of millions of dollars in spent fuel storage costs at the permanently shutdown reactor sites in New England and tens of billions of dollars nationally.

Although these recent court decisions represent a clear victory for the Yankee companies and New England's electric ratepayers, they do not provide a solution to the region's spent nuclear fuel storage problem. The U.S. Department of Energy ("DOE") must still meet its statutory and contractual obligation to remove spent nuclear fuel and high-level radioactive waste. Unless and until this occurs – and all the spent fuel and high-level waste is removed – permanently shutdown reactors are prevented from completing the timely and cost-effective decommissioning of their sites.

BACKGROUND

The Yankee Atomic Nuclear Power Station began operation in 1960 as a demonstration project under the Eisenhower Atoms for Peace program. It is located in the Western Massachusetts community of Rowe and operated for 32 years. Located on Sherman Pond, the plant is the only asset of Yankee Atomic Electric Company and was permanently shutdown in 1992. Yankee shipped 333 spent fuel assemblies from the site in the 1960's and 70's for reprocessing. Currently 533 assemblies remain stored in the reactor's spent fuel pool.

Connecticut Yankee's shutdown plant is the only asset of the Connecticut Yankee Atomic Power Company and is located in the town of Haddam. It was permanently shutdown in 1996 after 28 years of operation. In the 1970's, 82 spent fuel assemblies were removed from Connecticut Yankee with the intent of reprocessing. They are currently stored at a facility in Illinois. Currently, 1019 assemblies remain at the site.

Maine Yankee's shutdown plant is the only asset of the Maine Yankee Atomic Power Company and is located in the town of Wiscasset. It was permanently shutdown after 26 years of operation. Currently, 1,434 spent fuel assemblies are stored at the Maine Yankee site.

When the U.S. began developing commercial nuclear electricity plants, Congress, in the *Atomic Energy Act of 1954*, assigned the responsibility for spent fuel management and disposal to the federal government. Initially, the volume of spent fuel needing disposal was expected to be low because the used fuel was to be recycled. However, President Carter banned spent fuel reprocessing in 1978, markedly changing the scope of the government's responsibility.

Congress responded by passing the *Nuclear Waste Policy Act of 1982* ("NWPA"), providing specific details on how the government would accomplish removal and disposal of commercial spent fuel. The Act required DOE to enter into contracts with utilities obligating DOE to begin, no later than January 31, 1998, safely and permanently disposing of used fuel and other high-level radioactive waste from commercial plants. The Act also set up the Nuclear Waste Fund, the mechanism through which utilities would pay for – and ratepayers, through their electric bills, would fund – spent fuel's removal, safe transportation and disposal.

The Yankee companies have fully met their payment obligations under the contracts. As a region, New England's ratepayers have already paid over \$1.3 billion into the Nuclear Waste Fund. DOE, however, failed to meet its legal obligation in January 1998 to begin removal of spent nuclear fuel and other high-level radioactive waste from the commercial nuclear power plants.

After spending two decades and over \$6 billion, DOE still has not determined the suitability of a Nevada desert site for a permanent spent fuel disposal facility. The DOE program is seriously behind schedule. And despite its acknowledgment that permanent disposal will not be available until at least 2010, DOE has made no provisions for centralized interim storage or for removal of the spent fuel from commercial reactor sites. In short, DOE has violated the commitment the government made nearly 20 years ago.

DOE's failure to act has created formidable problems, especially for the commercial reactors that are permanently shut down – four of which are in New England. Nationally, the continuation of temporary on-site storage means that 78 nuclear waste sites would be located in 35 states. In New England, there would be seven waste sites in five states for the next half century and beyond.

With the federal government's efforts to store or dispose of spent fuel grossly lagging behind schedule, plant owners have turned to the courts. The U.S. courts have repeatedly agreed that the DOE is legally responsible for commercial used fuel management and disposal.

FEDERAL COURT ACTIONS DEMONSTRATE THAT UTILITIES AND THEIR RATEPAYERS HAVE MET THEIR OBLIGATIONS BUT THAT DOE'S OBLIGATIONS REMAIN UNMET

In 1997, Yankee Atomic filed a petition with the U.S. Court of Appeals seeking an order forcing DOE to remove its spent fuel. We sought an injunction from the D.C. Circuit ordering DOE to perform its obligation to remove the spent fuel. The government complained that it lacked authority to store spent fuel except in a permanent repository that has not been completed. The Court rejected that argument. It held that utilities have a clear right to relief and that DOE has a clear duty to act. The Court ordered DOE not to attempt to excuse its failure to meet its obligations based on the absence of a repository. But the D.C. Circuit declined to order DOE to accept and remove spent fuel, instead remanding utilities to their contract remedies.

The Yankee companies, therefore, brought actions for breach of contract and for a Fifth Amendment taking of their sites due to the government's use of them as spent fuel storage facilities. In 1998, the Yankee companies filed suits in the U.S. Court of Federal Claims against the government seeking at least \$288 million in damages (that would be incurred through 2010), representing a part of the financial burden imposed by DOE's failure to meet its contractual obligations. These suits were the first of 12 pending in the Court of Federal Claims brought by utilities seeking compensation on account of DOE's breach, and we expect many more similar suits to be filed soon.

The government has sought to put off its day of reckoning from these suits as long as possible. It sought to delay them while it appealed the D.C. Circuit's decision to the Supreme Court. The Supreme Court rejected that appeal. DOE moved to dismiss the suits on the ground that the companies had to first file administrative claims to be adjudicated by DOE. The trial court rejected the government arguments in the Yankee companies' cases in November 1998 and instead found that DOE had breached its contracts with the Yankee companies and was liable to the utilities for their damages. DOE subsequently appealed that decision; however, on August 31, 2000, the United States Court of Appeals for the Federal Circuit rejected the government's appeal and affirmed the Court of Claims' decisions in the Yankee companies' cases. The Federal Circuit decisions make clear that the government is liable for breach of contract damages to all nuclear utilities.

The impact of the government's breach on the Yankee companies is huge.

During plant operations, spent nuclear fuel is typically stored in heavily reinforced concrete pools of water inside nuclear electricity generating plants. At some operating plants, these storage pools are now nearing their capacity. At our permanently shutdown sites, the situation is more acute because these facilities cannot be fully decommissioned while the spent fuel remains at the site, thus making the sites unavailable for other uses. In order to proceed with decommissioning, the Yankee companies are forced to transfer their spent fuel from the existing pools to large concrete and steel casks.

Because of the government's breach of its commitment to timely remove spent fuel, the Yankee companies will have to stay in existence and maintain the spent fuel on their sites for an extended

period of time. Because of the government's breach, the Yankee companies have spent or will spend hundreds of millions of dollars to build and operate special, independent, long-term storage facilities ("ISFSIs") to maintain the spent fuel that the government has failed to remove.

Interim storage at reactor sites is extremely costly to utilities and their ratepayers. Moreover, under the current federal program, such "temporary" storage could end up extending to 50 years or more. This situation can be avoided if DOE would meet its obligation and start removing spent fuel from commercial reactor sites.

The Yankee companies have made exhaustive court presentations substantiating their damages. DOE has yet to put forth any arguments for why the companies' claims are not valid. Instead, DOE persistently seeks to delay. It seems clear, at least thus far, that DOE would rather litigate extensively than develop and implement a real near-term remedy for its failure to accept and remove commercial spent fuel.

DOE SHOULD START REMOVING SPENT FUEL NOW

An alternative to prolonged litigation is readily at hand. DOE can and should remove the spent fuel from the Yankee companies' sites now. There is no legitimate basis for any further delay.

The Nuclear Waste Fund can and should be used to site and operate a central, temporary storage facility (for example, in Nevada). Regardless of where DOE provides for storage, the DOE has the clear authority and ability to begin removing spent fuel from shutdown reactor sites.

The added cost to utilities and their ratepayers for continued storage at existing nuclear plant sites would be in the billions of dollars. The near-term financial burden is most severe at permanently shutdown (single-unit) plants. Not only does dry cask storage have to be built and locally monitored for decades, but the completion of the decommissioning process and release of the sites for reuse (e.g., as a natural gas-fired power plant) will be delayed.

The recent agreement between the DOE and PECO does not provide a solution for shutdown reactors. First, the PECO settlement has no effective mechanism for near-term spent fuel removal by DOE. Moreover, the settlement is based on future reductions in payments into the Nuclear Waste Fund – which shutdown plants have no future basis or obligation to pay. Like all utilities, the Yankee companies' payments into the Nuclear Waste Fund were provided to ensure the timely and cost-effective removal of spent fuel from the reactor sites. The Waste Fund was not, and should not, be utilized to provide partial compensation to utilities for the DOE failure to meet its spent fuel programmatic obligations. Rather, the Waste Fund should be utilized to provide for the earliest possible removal of spent fuel from reactor sites.

PRIORITY REMOVAL FROM SHUTDOWN PLANTS IS NEEDED:

In 1992, Yankee Atomic was the first of four nuclear plants in New England to permanently shut down and serves to highlight the impact of DOE's failure to meet its obligations. At that time, Yankee completed its \$22.5 million payment in spent fuel disposal fees to DOE and began to restore the Western Massachusetts site to a "green field" condition. By January 1998 – the date

DOE was scheduled to begin accepting used fuel shipments for disposal – more than 80% of the decommissioning work was completed. However, the work cannot be finished until DOE removes the 533 spent fuel assemblies remaining at the site. The situations at Connecticut Yankee and Maine Yankee are similar. But for DOE's failure to remove their spent fuel, these plants could be fully decommissioned within two or three years.

A damage award at the end of protracted litigation cannot satisfactorily compensate the Yankee companies for DOE's failure to perform its obligations. DOE must confirm actual dates for removal of spent fuel and provide for priority acceptance from plants that would otherwise be able to terminate their NRC licenses, return their sites to other uses, and avoid substantial on-site spent fuel storage costs. According priority to shutdown plants would result in very substantial decommissioning cost savings to U.S. ratepayers by reducing both the total number of spent fuel shipments and the time to remove all spent fuel from reactors after shutdown. Early removal of spent fuel would also minimize DOE's liability for damages in the litigation, thus relieving taxpayers of that burden.

To expedite the eventual movement of spent fuel to a federal site, many of the permanently shut down plants, including the Yankee companies' plants, are now proceeding to package their spent fuel in special NRC-licensed canisters that will be placed directly in shipping casks once DOE begins to move fuel. The dual-purpose storage and transport systems currently planned for use at the Yankee companies' sites also allow the decommissioning of the spent fuel pools. The dual-purpose storage and transport systems will enable DOE to reduce the total number of spent fuel shipments from New England – from over 6,000 truck shipments to fewer than 600 rail shipments.

Prioritized acceptance of spent fuel from the shutdown reactors in New England would save the regional ratepayers hundreds of millions of dollars and cut the time required to remove the spent fuel. The Senate and House have recognized this in the 105th and 106th Congress with passage of legislation that included a provision for accelerating the removal of spent fuel and high-level waste from the sites of permanently shutdown reactors.

DOE SHOULD BEGIN THE TRANSPORTATION PROGRAM NOW

Spent nuclear fuel has been, and routinely continues to be, safely shipped throughout the U.S. by the Department of Energy.

DOE is currently accepting up to 22,700 individual spent nuclear fuel assemblies from research reactors in 41 countries – including Canada and Australia – and transporting this spent fuel for interim storage at DOE facilities in South Carolina and Idaho. This nonproliferation effort is being conducted with the support of the Natural Resources Defense Council and the Nuclear Control Institute.

The majority of spent fuel shipped from research and defense facilities is stored at three interim sites in Idaho, South Carolina, and Washington. Under agreements between DOE and these states, the defense facilities' waste will be moved to the repository when it becomes available.

Since 1971, spent fuel and high-level radioactive waste from U.S. research and defense facilities

have been safely transported and stored by DOE. The 1,306 shipments of spent fuel made between 1979 and 1995 from academic, industrial, and utility reactors accounted for 839,268 shipment miles of more than a thousand metric tons. DOE is already using routes for high-level waste transport that pass through all but four states.

These shipments are in accordance with Federal, state, and local government regulations that ensure the safe transportation of radioactive spent fuel. The two principal federal agencies that oversee the implementation of relevant laws and guidelines are the Department of Transportation (“DOT”) and the Nuclear Regulatory Commission (“NRC”). DOT regulates highway routing, packaging, labeling, shipping papers, personnel training, loading and unloading, handling and storage procedures as well as transportation vehicle requirements. The NRC regulates container design and manufacturing to ensure that shipping containers maintain their integrity under routine transportation conditions and during severe accidents.

Given the historical delays in the DOE program and long lead times associated with fabrication of the transportation component of the dual-purpose canister systems currently used by many utilities, state and local communities are concerned that on-site spent fuel storage at reactor sites might become permanent. These concerns have been heightened by DOE’s proposals that it be allowed to “take title” to fuel at utility sites and by the steady erosion of the DOE Waste Acceptance and Transportation (“WAST”) budget (an element of the Office of Civilian Radioactive Waste Management (“OCRWM”) program).

To address these concerns, DOE should demonstrate its commitment to remove and transport these dual-purpose canister systems – and should immediately implement a program to fabricate and deploy the necessary transport casks and rail system. Such action will serve to both (1) provide the necessary assurance that DOE intends to meet its obligation and remove spent fuel to a federal site, and (2) demonstrate the soundness of the necessary infrastructure to complete this important national objective. **CONCLUSION**

There is no legal or practical reason why DOE cannot and should not begin removing spent fuel from the Yankee companies’ plants now. There is every reason for DOE to do so. The recent decisions of the federal courts support those of this Committee, and demonstrate that DOE must meet its obligation to remove spent fuel from reactor sites. Further delay is unacceptable.