

**Responses to Questions for the Record from the Honorable Anthony J. O'Donnell
Commissioner, Maryland Public Service Commission
Chair, NARUC Subcommittee on Nuclear Issues-Waste Disposal
On Behalf of the National Association of Regulatory Utility Commissioners (NARUC)
For the
United States House of Representatives
Committee on Oversight and Government Reform
Subcommittee on the Interior, Energy, and the Environment
Hearing Titled "Examining America's Nuclear Waste Management and Storage"
Held on September 26, 2017**

Questions for the Record submitted by Chairman Blake Farenthold

- 1. Question: Can you elaborate on the financial burden placed on consumers that have already paid into the Nuclear Waste Fund?**

O'Donnell Answer: The financial burden placed on the consumers varies by State.

Cost of Interim On-Site Storage: In both restructured and traditional electricity markets, all the costs of constructing, decommissioning and ongoing operations, including on-site cooling pools intended for the interim storage of waste, are recovered through rates. Consumers pay those rates.

Cost of Unmet Federal Solution: In 1982, Congress decided that the consumers that benefit from the electricity generated from nuclear generating plants must pay the costs of the federal nuclear waste program in exchange for the Department of Energy (DOE) taking the waste from the pools and disposing the waste in a permanent geologic repository. To fund the development, licensing, construction, and operation of the repository, DOE was given authority to collect annual fees from nuclear power plant operators. That fee was set at one mill (one-tenth of one cent) for each kilowatt hour generated by each plant. The plants were entitled to recover those costs in their electric rates. While the 1 mill fee was suspended in 2013, since 1983, Consumers have invested approximately \$47 billion dollars.

Cost of Additional On-Site Storage: Due to the federal government's failure to site, license, construct and begin collecting the nuclear waste for disposal as expected, and as contracted for, by the date required by the Nuclear Waste Policy Act (January 31, 1998), plants were forced to consolidate the waste on site. The cost of "re-racking" the fuel in the spent fuel pools was necessary to keep the nuclear units operating safely until the federal government removes and disposes of the waste. As a result, the nuclear plants began to run out of space in storage pools and had to find alternative storage options. Most opted to construct above ground storage facilities and move waste to dry cask storage on-site. Again, consumers paid through their rates for the costs to build these storage sites, purchase casks, move the fuel from pools to the casks to the storage site, and maintain and secure the new storage facilities.

Cost of the Judgement Fund: Some unanticipated costs associated with the continued storage of nuclear waste from nuclear plants may not necessarily be recoverable in rates. This, coupled with a need for increasing existing on-site storage capacity for operating units, caused the utilities to sue the federal government for monetary damages caused by the failure of the federal nuclear waste program. Many State regulators supported the utilities legal action. These legal actions have now cost not only ratepayers, but ALL taxpayers over \$4.5 billion thus far and that tally grows by about a half billion per year.

b) Question: Is there any financial relief in sight?

O'Donnell Answer: No

Follow up question: Do you have any suggestions for alleviating this burden?

O'Donnell Answer: To help stop the bleeding, we need a decision on a permanent repository quickly. The Nuclear Regulatory Commission (NRC) has issued staff safety evaluation reports that indicate the Yucca Mountain site will work. Congress must allocate funds, and the DOE must actively pursue, expeditious review of the Yucca Mountain license application. Until the NRC issues a decision, based on sound science, as to whether or not the Yucca Mountain site is viable, serious progress is not possible. The prosecution of the license will provide ongoing checks on the urgency for finding another suitable permanent disposal site and on decisions of the costs/benefits associated with any possible interim storage solution.

Questions for the Record submitted by Chairman Blake Farenthold On behalf of Rep. Jody Hice

- 1. Question: When the D.C. Circuit ordered the Department of Energy to suspend the collection of the nuclear waste fee, electricity consumers in my home state of Georgia had paid over \$862 million into the Nuclear Waste fund. The total \$46.7 billion balance in the fund is now generating \$1.5 billion in interest annually. I am very pleased that the current Administration plans to use the fund for its intended purpose. Do you believe that the nuclear waste fee should be reinstated and under what condition?**

O'Donnell Answer: In terms of the NWF, given the interest it generates, it is not clear that additional funds would be needed any time soon. In my opinion, any decision to restart the fee must consider the annual interest the fund already generates. However, it seems likely that at some point the fee will need to be reinstated. Before reinstatement can be justified on any grounds, the NRC must complete the review of the Yucca Mountain license application and make a final determination on its suitability.

Moreover, it is crucial before reinstatement, that some mechanism be incorporated into law to avoid current problems with how fees are collected and disbursed today. The provisions in Mr. Shimkus's bill which only allows the government to collect up to 90 percent of what has been appropriated by Congress for that year in fees is a necessary prerequisite to reinstatement.

- 2. Question: The courts have found the Department of Energy liable for tens of billions of dollars for on-site storage costs under lawsuits filed by utilities based on DOE's failure to meet the 1998 contractual deadline to begin moving waste from reactor sites. As a state commissioner, would the continued reimbursement of these costs be acceptable to you in the long-term, or do you believe that a permanent repository for nuclear waste is still required?**

O'Donnell Answer: The fact that taxpayers must continue to fund billions in damages from the Judgement Fund for DOE's partial breach is unconscionable. The costs of securing waste at both operating and retired facilities, of continuing to block other economic uses of non-operating sites because of the presence of stored waste, as well as the transactional costs associated with litigation required for operating plants to access the judgement fund, is a wasteful and inefficient burden on all taxpayers. However, these damages must be paid until DOE meets its legal obligation by accepting the waste AND removing it from retired and operating reactor sites. Moreover, notwithstanding Judgement Fund payments, a permanent repository for nuclear waste is not only necessary, it is required by federal law.

- 3. Question: Until the federal government meets its obligation to accept and move spent nuclear fuel from reactor sites, utilities will be forced to store spent fuel on site. Are you convinced that this can be done safely?**

O'Donnell Answer: Yes, it has been done safely for at least 50 years. However, while the waste is being stored safely, on-site storage was never intended to be a long term solution. The long-term safety could become an issue at some point in the future, if the federal government continues to fail in its charge to remove the waste from the plant sites and place it in a permanent repository.

- b) Question: How do utilities decide to move fuel out of their storage pools and build "dry cask" storage, and how much does it cost?**

O'Donnell Answer: In the late 1970s and early 1980s, the need for alternative storage was recognized as pools at many reactors began to fill up with stored spent fuel. Utilities began looking at options like dry cask storage to increase on-site waste storage capacity. Dry cask storage allows spent fuel that has already been significantly cooled in the spent fuel pool to be stored surrounded by inert gas inside a cask. Each cask is designed to hold 2-6 dozen spent fuel assemblies, depending on the type of assembly. Water and air are removed and the canister is filled with inert gas, and sealed. Because there are different types of dry storage cask system designs, the cost of the systems vary depending on when purchased and when deployed. The cost of adding above ground storage is also impacted by many other factors, including but not limited to, above ground storage capacity (i.e. available acreage), number of casks necessary, location of the above ground storage site, etc. Additionally, federal licensing and safety analysis costs are not an insignificant component of total dry cast storage costs. I have been unable to locate verifiable estimates of average costs for dry cask storage.