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**COMMENTS OF PHILIP BRADLEY  
 CHAIRMAN, PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA  
 BEFORE  
 THE U.S. DEPARTMENT OF ENERGY  
 PUBLIC HEARING ON  
 DRAFT ENVIRONMENTIMPACT STATEMENT  
 FOR A GEOLOGIC REPOSITORY AT YUCCA MOUNTAIN, NEVADA**

**ATLANTA, GEORGIA  
 OCTOBER 21, 1999**

Good afternoon. I am Philip Bradley, Chairman of the Public Utility Commission of South Carolina. Thank you for the opportunity to speak to you today on behalf of the National Association of Regulatory Utility Commissioners (NARUC) and the State of South Carolina.

You have already heard comments from a number of Commissioners who  
 1... have preceded me. I do not want to reiterate their comments. However, it is imperative that the DOE take the necessary actions to fulfill its mandate in the Nuclear Waste Policy Act (NWPA) to develop a permanent repository for spent nuclear fuel and high-level radioactive waste at Yucca Mountain, Nevada. Doing nothing or taking no action to remove nuclear waste from the plant sites is not

...1 an option. There is nothing in the Draft Environmental Impact Statement (DEIS) that precludes moving forward with the development of Yucca Mountain as a permanent repository. Also, the NWPA specifies that the DEIS need not consider the need for a repository, alternatives to geologic disposal, or alternatives to Yucca Mountain. The need for a permanent repository, geologic disposal, and the Yucca Mountain site are the mandated parameters within which the DOE must operate.

However, The DEIS evaluates two scenarios of what is called the "No Action Alternative," which it says "provides a baseline for comparison" with the proposed action. In both scenarios, storing waste at the plant sites for 10,000 years (Scenario 1) or storing the waste at plant sites for 100 years (Scenario 2), the spent nuclear fuel remains at the plant sites. Currently more than **38,500 MTU** are stored on-site at **72** commercial nuclear power plants in **36** states. Additional high-level radioactive waste is stored at five DOE sites.

2... In Scenario 1 the waste remains at current sites under "institutional controls" for 10,000 years with repackaging approximately every 100 years. Nearly **\$5 trillion** would be required for canister replacement. According to the cost estimates in the DEIS, this scenario is double the cost of storing waste on-site for 100 years under institutional controls (Scenario 2). In human terms, an additional **3** latent cancer deaths would occur in the exposed population and **28** additional latent cancer deaths in the population of on-site workers. This is

...2

substantially more radiation-related cancer deaths than occur if the repository is completed at the sparsely populated Yucca Mountain site.

Scenario 2 is not as financially burdensome. Waste remains at the plant sites under "institutional controls" for only 100 years, but the waste still remains at the plant sites for 10,000 years. For the first 100 years, the costs for Scenario 1 and Scenario 2 are the same. However, the number of people who would be affected by the migration of radioactive materials is far greater in Scenario 2. Additional latent cancer deaths in the exposed population increase to **3,300** with **12** additional latent cancer deaths in the on-site worker population. Such high numbers of latent cancer deaths are unacceptable.

Both Scenario 1 and Scenario 2 have higher costs in both dollars and additional radiation-related latent cancer deaths than the completion of Yucca Mountain as the repository. This combination of higher dollar costs and intolerably higher latent cancer deaths precludes the "No Action Alternative" as an option.

3

The DEIS stipulates that "neither scenario would be likely if there were a decision not to develop a repository at Yucca Mountain..." However, the DOE states that, "Under any future course that would include continued storage, both commercial and DOE sites have an obligation to continue managing the spent nuclear fuel and high-level radioactive waste in a manner that protects public health and safety and the environment." This does not give me much assurance or comfort that the "No Action Alternative" is for baseline comparison only.

10 Neither Scenario 1 nor Scenario 2 is acceptable to NARUC or to the people  
4 of South Carolina. The "No Action Alternative" violates the NWPA by not  
9 removing the waste to a centralized repository. It also places burdens and  
requirements on nuclear plants that were never envisioned by the utility  
companies or the federal and state utility regulators. The storage facilities at  
nuclear power plant were never designed to store spent nuclear fuel for 100  
years, let alone 10,000 years. The adverse health, safety, and environmental  
impacts of storing nuclear waste indefinitely at plant sites are too great.  
5 Ratepayers nationwide have paid nearly **\$16 billion** into the nuclear waste fund  
for a repository to be completed. To date, the ratepayers have gotten very little  
for their payments.

Nuclear power accounts for about **36 percent** of electrical generation  
capability (MW) and **57 percent** of electric consumption (kWh) in South  
Carolina. Our ratepayers have paid nearly **\$550 million** into the fund. More  
than **2,750 MTU** of spent nuclear fuel is stored in pools or dry storage  
containers at four reactor sites in South Carolina. Because of storage capacity  
limitations, Carolina Power and Light Company (CP&L) is currently transporting  
spent nuclear fuel from its Robinson Plant in South Carolina to its Harris Plant in  
6... North Carolina. CP&L is now seeking NRC approval to expand storage facilities at  
its Harris Plant. Duke Power Company will need additional storage capacity for its  
Catawba Plant prior to 2006 to support continued operations. Without additional  
storage capacity the nuclear plants would be required to shutdown prematurely

6... or would be prohibited from renewing their operating licenses. Additional financial burden will be placed on the South Carolina ratepayers who will have to absorb through increased electric rates some or all of these additional unintended storage costs. If the nuclear plants are forced to shutdown prematurely or cannot renew their operating licenses, the ratepayers will have to pay the costs for replacement power. South Carolina ratepayers would still continue paying approximately **\$40 million** per year into the Nuclear Waste Fund as long as the nuclear plants continue to operate.

7... More than **100,000 MTU** of defense high-level radioactive waste is stored at the DOE's Savannah River Site. This is approximately **36 percent** of the total inventory of high-level radioactive waste in the nation. The Savannah River Site is unacceptable as a repository. It borders the Savannah River, it is located near a major underground aquifer that provides water as far away as Florida, it is in an earthquake zone, and it is located in a populous and rainy area. Yucca Mountain was selected as the repository site because it has none of the characteristics associated with the Savannah River Site. Health, safety, and environmental concerns require that the repository be located at an isolated site having a sparse population, a dry climate, a low probability of natural disasters such as earthquakes, and not be near rivers or aquifers that supply water to a large population.

6... I conclude by stating that nothing in the DEIS would preclude the development of a permanent nuclear waste repository at Yucca Mountain. The

...6 "No Action Alternative" is not an option and should be summarily rejected. Spent  
nuclear fuel cannot remain at the plant sites and must be moved to a centralized  
8 repository. High-level nuclear waste and spent nuclear fuel can be safely  
transported. Currently high-level nuclear waste from all over the U.S. and from  
foreign countries is safely transported to the Savannah River Site. Spent nuclear  
fuel is being safely transported from South Carolina to North Carolina. Nationally,  
electric ratepayers have paid about **\$16 billion** to develop a repository, and  
...7 South Carolina Ratepayers have paid nearly **\$550 million**. The Savannah River  
Site is not acceptable as an interim or permanent storage site because of health,  
safety, and environmental reasons. Thank you.