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The Public Service Commission  
State of South Carolina

WILLIAM "BILL" SAUNDERS  
COMMISSIONER, FIRST DISTRICT  
CHAIRMAN

RECEIVED

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September 14, 2001

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The Honorable Lake H. Barrett, Acting Director  
Office of Civilian Radioactive Waste Management  
Department of Energy  
Washington DC 20585

Dear Mr. Barrett:

Thank you for allowing the State of South Carolina to have input into this process. We still have hope that Yucca Mountain will be a reality.

Sincerely,



William Saunders

WS:ng  
Enclosure:

Cc: The Hon. H. Clay Carruth, Jr., Vice Chairman  
The Hon. Mignon L. Clyburn, Commissioner  
The Hon. James Blake Atkins, Ph.D., Commissioner  
The Hon. Philip T. Bradley, Commissioner  
The Hon. Randy Mitchell, Commissioner  
The Hon. C. Robert Moseley, Commissioner

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## **Comments of the Public Service Commission of South Carolina**

### **Yucca Mountain Preliminary Site Suitability Evaluation**

#### **1. Preliminary Site Suitability Evaluation**

Since 1987, Yucca Mountain has been the sole focus of study for a permanent underground repository for high-level radioactive waste. All research conducted at Yucca Mountain has been continually reviewed by regulatory agencies and advisory and peer groups such as the Nuclear Waste Technical Review Board, the Nuclear Regulatory Commission, the Advisory Committee on Nuclear Waste, and the U. S. Geological Survey. In fact, the research at Yucca Mountain has been expanded and revised to address the concerns of the reviewing bodies.

Earlier reports from the National Academy of Sciences and the Department of Energy's Draft Environmental Impact Statement and Science and Engineering Report presented a strong scientific case that underground storage is the safest and most economical method for disposing of high-level radioactive waste. These reports also found no scientific reasons why a repository at Yucca Mountain would not meet all design and regulatory requirements.

Since the Environmental Protection Agency had not promulgated final radiation exposure standards for a repository when the earlier studies were completed, the earlier studies could not show compliance with standards that did not exist. The Preliminary Site Suitability Evaluation shows that the radiation standards can be met for a range of design options and for both the pre-closure and post-closure phases of the repository. Also, the radiation standards promulgated by the Environmental Protection Agency are more protective of the public health and safety than the National Academy of Sciences determined as sufficient and recommended. The radiation standards for Yucca Mountain also exceed international standards.

#### **2. Recommendation of the Yucca Mountain site to the President**

Nearly twenty years of study and numerous reports have shown beyond reasonable doubt that Yucca Mountain is a suitable site for a permanent underground repository for high-level radioactive waste.

Scientific evidence supports a recommendation from Secretary Abraham to the President that Yucca Mountain be approved as the site for a permanent repository. The Public Service Commission of South Carolina urges Secretary Abraham to make a positive recommendation on Yucca Mountain to the President as soon as possible after the public comment period. The Commission also urges Secretary Abraham to encourage the President to approve Yucca Mountain as the repository site as soon as possible. Shipments of high-level radioactive waste to the repository would not occur until at least 2010 under the most optimistic scenario. This is twelve years beyond that statutory acceptance date of January 1998. Further delays are not acceptable.

**3. President Bush should approve Yucca Mountain as the repository site**

If Secretary Abraham recommends Yucca Mountain as suitable for a repository site, the President should approve the recommendation. The Department of Energy will have reached its conclusion based on rigorous scientific evaluation. The President will have no scientific reason for not accepting and approving a positive recommendation from Secretary Abraham.

**4. Other relevant comments**

The current policy of storing spent nuclear fuel at more than 70 plant sites is not acceptable. Storage of spent nuclear fuel at reactor sites is safe for short-term temporary storage. However, storage at plant sites is not a safe for long-term or permanent storage of spent nuclear fuel. The on-site storage capacity at a number of plant sites is nearly exhausted and, at some sites, has been exhausted. If these nuclear reactors are to continue generating electricity, either existing storage capacity must be expanded or new storage capacity must be found. The cost of expanding or constructing new storage capacity is passed onto the ratepayers who have already paid over \$16 billion including interest into the Nuclear Waste Fund. The ratepayers will be paying twice for the storage on spent nuclear fuel.

Two on-site storage scenarios were studied in the Draft Environmental Impact Statement released in 1999. Both of these scenarios proved inferior to a permanent geologic repository. Either

the costs of on-site storage over the 10,000 year storage life were substantially higher than the costs of a geologic repository or the health consequences were significantly higher. Neither of these on-site storage scenarios is acceptable. A permanent geologic repository is cheaper and safer than the current policy of on-site storage.

Many opponents of the Yucca Mountain site, or any site, for permanent high-level radioactive waste disposal object to the transporting of nuclear waste because of health and safety concerns. The Draft Environmental Impact Statement showed that radioactive waste can be transported safely. Shipments of high-level radioactive materials are regulated at every step of the transportation process. Since the mid-1960s, there have been approximately 3,000 shipments of high-level radioactive materials. There have been only a few accidents involving the transportation of high-level radioactive materials, and no releases of radioactivity have occurred as a result of these accidents. Transportation canisters are rigorously tested and must be approved by the Nuclear Regulatory Commission.

The Department of Energy has not determined the specific routes or modes of transportation for shipments to Yucca Mountain. If Secretary Abraham recommends Yucca Mountain as a suitable repository site, The Public Service Commission encourages the Department of Energy to begin a detailed transportation analysis as soon as possible thereafter. A cooperative and collaborative process should be utilized in the transportation study. Appropriate federal, state, local, and tribal agencies should participate.

South Carolina has a low-level radioactive waste disposal site in Barnwell County, and high-level radioactive waste is stored at the Savannah River Site. We share the health and safety concerns over the shipment and storage of high-level radioactive materials expressed by the people of Nevada and others. A permanent repository should be constructed at Yucca Mountain only if it is safe. Much of Nevada is sparsely populated, has limited infrastructure, and contains large amounts of federal government land. The federal government should assist Nevada in developing the necessary infrastructure and providing the necessary training to ensure the safe transportation and storage of high-level radioactive materials. Assistance should also be provided to Nevada for mitigating potential health and safety effects of being the site of a high-level radioactive material repository. The Nuclear Waste Fund could provide some of this assistance.