

Statement to  
Blue Ribbon Commission on America's Nuclear Future  
By  
Aiken County Government, South Carolina

**Introduction:**

Thank you for the opportunity to comment on the draft report of the Blue Ribbon Commission on America's Nuclear Future. I am here today to provide Aiken County, South Carolina's comments on the draft report.

Aiken County is a major stakeholder in the work of this Commission: (1) we are the host community to one of the nation's largest concentrations of defense high level radioactive waste which has been orphaned by the circumstances leading to the establishment of this Commission and (2) we have demonstrated a leadership position in challenging what we believe to be illegal actions of our government in ignoring the binding requirements of the Nuclear Waste Policy Act.

This commission has a unique opportunity to (1) resolve the protracted and unnecessarily divisive nuclear waste political dilemma which has for too long cast a shadow on commercial nuclear power and (2) correct the inequities resulting from decades of broken promises by our federal government to remove defense nuclear waste from the communities which helped win the cold war.

In some of its recommendations the Commission has proposed thoughtful and appropriate long-term solutions to vexing issues; however we believe that the Commission has only partially capitalized on this opportunity since it leaves at least two very real near-term major issues inadequately or inappropriately addressed:

1. The Nuclear Waste Policy Act and Yucca Mountain, and
2. Disposition of Research Reactor Used Nuclear Fuel

Aiken County offers two sets of recommendations for changes in your draft report to correct these concerns.

**Background & Discussion: The Nuclear Waste Policy Act and Yucca Mountain**

Aiken County and others believe that actions of the Department of Energy to ignore the provisions of the Nuclear Waste Policy Act by canceling the Yucca Mountain Program are illegal, and we have initiated legal action to 'right this wrong.'

Similarly, we believe this Commission cannot ignore the supremacy of the Nuclear Waste Policy Act in your deliberations. It is not sufficient to merely note the controversy and "take no position." While we understand you are not a "siting" commission, it seems to us that ignoring Yucca Mountain as the legally designated high level radioactive waste disposal site runs contrary to any practical discussion about this issue. In addition, given the work already done on Yucca Mountain, failure by this Commission to even consider

it as a reasonable and viable alternative likely will affect the credibility of the Commission's pending report.

Judicial review of Aiken County's petitions to overturn the cancellation of Yucca Mountain is on-going. Actions to date by both the Courts and the Nuclear Regulatory Commission tend to support the merits of Aiken County's position – the Nuclear Waste Policy Act is the law of the land, and that Yucca Mountain is the lawfully designated repository for high level radioactive waste.

The legal argument to include consideration of Yucca Mountain in your report is compelling and sufficient in itself. However there are other equally practical arguments supporting inclusion of Yucca Mountain in your report, such as:

- Enhancing public safety and protecting the environment. The Yucca Mountain Environmental Impact Statement demonstrated conclusively that public safety and environmental protection is significantly improved with high level radioactive nuclear waste placed in Yucca Mountain compared to continued storage in temporary or interim surface storage. Review by the Nuclear Regulatory Commission substantiates that Yucca Mountain can meet very stringent safety and environmental protection objectives.
- The early completion of Yucca Mountain is the least costly and surest way to solve our nation's nuclear waste dilemma.
  - The Federal Government has collected over \$30 Billion from ratepayers with a promise to provide a repository for nuclear waste
  - \$9 Billion has been expended to successfully develop and qualify the Yucca Mountain site, with many more billions being provided to local stakeholders
  - Available funds are sufficient to make Yucca Mountain operational
  - The Federal Government is currently liable for over \$20 Billion in penalties because it has not opened a repository in a timely manner. The timely availability of Yucca Mountain will reduce future increases in this financial hemorrhage.
  - Establishing interim storage does not solve the problem – at some point in time a geologic repository will be required. Let it be now!

Unless Yucca Mountain is opened, additional untold billions of dollars will be spent to identify, evaluate and develop an alternate site, with no assurance that the alternate site will meet, much less exceed, Yucca Mountain's currently proven capabilities.

In summary: Yucca Mountain must be included in your final report: It (1) is the law of the land, (2) will provide immediate and long-term public safety and environmental advantages and (3) allows precious national intellectual and fiscal resources to be better used for other crucial national societal and economic issues, not wasted on an parochial political issue.

### **Recommendation Number 1 – Nuclear Waste Policy Act and Yucca Mountain**

Aiken County recommends that the draft report be revised to incorporate the following facts:

- The Nuclear Waste Policy Act, a legal action of the United States Government, has determined that Yucca Mountain shall be the location for the Nation's first high level radioactive waste geologic repository, subject to environmental and safety reviews
- Yucca Mountain has met or exceeded all of the very stringent environment, safety and engineering requirements for a repository as established by the Environmental Protection Agency and the Nuclear Regulatory Commission
- Commercial and defense used nuclear fuel have less risk to the public and the environment when disposed in Yucca Mountain as compared to their current temporary and interim storage locations
- The nation and utility ratepayers has expended \$9 Billion to successfully prove the Yucca Mountain location. Common sense dictates that this investment be fully utilized, not wasted.

It is further recommended that your final report include the following recommendation:

“The Department of Energy and the Nuclear Regulatory Commission comply with the Nuclear Waste Policy Act and complete their Yucca Mountain review, authorization, construction activities and begin repository operations in an expedited manner for its early availability as the nation's first geologic repository for used commercial nuclear fuel and defense high level radioactive wastes”

### **Background & Discussion: Research Reactor Used Nuclear Fuel**

Aiken County and the State of South Carolina is the location of defense high level radioactive waste stored on the Department of Energy's Savannah River Site. Defense high level waste is present in three primary forms:

1. Canisters of vitrified high level waste which have been prepared for disposal in Yucca Mountain. Over 3,000 canisters are ready for immediate shipment to Yucca Mountain.
2. Liquid high level radioactive wastes stored in underground tanks. These wastes are currently being processed to prepare additional canisters of vitrified waste. An additional 3,000 canisters of vitrified waste will be prepared as the underground tanks are emptied.
3. Research Reactor Used Nuclear Fuel which is being stored in a water basin on SRS. Over 15,000 items of used fuel are currently on SRS and an additional 8,000 items are scheduled for receipt by the year 2020.

All of these materials are affected by this Commission's report:

- Canisters of vitrified high level waste will be disposed in the repository resulting from the Commission's report and
- Research Reactor Used Nuclear Fuel will be disposed via a pathway established in your report

Aiken County's views on disposal of canisters of high level radioactive waste in a repository are contained in our first set of recommendations.

Disposal of Research Reactor Used Nuclear Fuel is a special concern because your draft report does not address potential disposal pathways for this material. Without guidance in the Blue Ribbon Report, it is possible DOE will take no action to dispose of these materials, creating significant adverse health and safety, environmental and economic impacts.

Aiken County's concerns are summarized in the following seven points:

1. The majority of Research Reactor Used Nuclear Fuel is clad in aluminum, a material not designed for long term storage. In addition, the materials are stored in L Reactor basin, an unlined concrete pool not designed to retain materials for extended periods of time.
2. Previous DOE plans disposed of all Research Reactor Used Nuclear Fuel on SRS by the early 2020s by using H Canyon and vitrification of resultant high level radioactive waste
  - a. H Canyon exists and the processing flowsheet is proven
3. In early 2011 DOE cancelled previous plans to dispose of Research Reactor Used Nuclear Fuel using H Canyon.
  - a. **DOE says they are waiting for the report of the Blue Ribbon Commission before establishing a disposal pathway for Research Reactor Used Nuclear Fuel**
  - b. **Unfortunately, the draft Blue Ribbon Commission Report does not address disposal of Research Reactor Used Nuclear Fuel. Indeed, the report could be interpreted to recommend that the material not be processed for disposition.**
4. DOE is not working on alternatives to H Canyon for the disposal of Research Reactor Used Nuclear Fuel
5. Unless conclusively addressed in the Blue Ribbon Commission report, DOE's current guidance will most likely result in Research Reactor Used Nuclear Fuel remaining at SRS for decades.
  - a. DOE is planning to build additional storage space for Research Reactor Used Nuclear Fuel at SRS
  - b. If a processing decision is delayed for over a year or two, there is a high possibility that H Canyon may no longer be available; necessitating development and construction of a very costly alternate processing facility
6. There is increased risk by continuing to store Research Reactor Used Nuclear Fuel instead of disposal:
  - a. The risk to site workers, off-site public safety and the environment will increase with time
  - b. The risk has not been quantified
7. DOE will continue to bring additional Research Reactor Used Nuclear Fuel to SRS from international and domestic locations. The SRS inventory of Research Reactor Used Nuclear Fuel will continue to increase.

DOE is looking for input from this Commission for the disposal of Research Reactor Used Nuclear Fuel and we offer a series of changes and a recommendation for inclusion in your final report.

**Recommendation Number 2 – Research Reactor Used Nuclear Fuel**

Aiken County recommends the draft report be revised as follows:

- Specifically address the storage, treatment and disposal of Research Reactor Used Nuclear Fuel;
- Acknowledge that aluminum clad Research Reactor Used Nuclear Fuel is one of the least stable and highest risk materials considered by the Blue Ribbon Commission in its deliberations;
- Recommend that DOE take immediate action to place Research Reactor Used Nuclear Fuels in the safest possible configuration, including preparation for final disposal;
- Encourage DOE to minimize life-cycle costs to the taxpayer in reducing risk from Research Reactor Used Nuclear Fuel. To the extent possible, recover assets with economic value.
- Encourage DOE to meet its contractual and good faith commitments to states and communities for the timely removal of all high level radioactive wastes resulting from defense nuclear activities.

It is further recommended that your final report include the following recommendation:

“For aluminum clad Research Reactor Used Nuclear Fuel at the Savannah River Site, the safest, quickest and least costly disposal option is immediate processing and preparation of wastes for disposal at an offsite repository. Disposal of the aluminum clad Research Reactor Used Nuclear Fuel at the Savannah River Site must be a high DOE priority.”

Thank you for the opportunity to comment on your draft report.