



# NUCLEAR WASTE STORAGE: STILL WRONG FOR WYOMING

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In early July the Legislature's Management Council authorized funding to study transporting irradiated used fuel from commercial nuclear reactors to Wyoming for "interim" or "temporary" storage. This vote, which occurred by email between committee members without any public notice or transparency, did not comply with the Legislature's own rules regarding interim studies. The Wyoming public only learned of the effort when the story was broken by the news media.

The Wyoming Outdoor Council is opposed to nuclear waste storage in Wyoming. There is historic and widespread agreement among state leaders and the public that the risks to our state are overwhelmingly high. And the reasons are conclusive: storing high-level radioactive waste threatens our public safety, our national image, our economic health, our political certainty, our resources, and our long-term prosperity.

## BACKGROUND –

### WHAT IS NUCLEAR SPENT FUEL?

- Spent or used fuel rods from commercial nuclear reactors are classified as high-level radioactive waste and their storage and disposal are regulated under the Nuclear Waste Policy Act.
- This waste is extremely dangerous. Unshielded, it can give off a lethal dose of radiation in seconds.
- Federal law requires that spent fuel be isolated from the environment for 10,000 years — nearly two times longer than all of recorded history.
- The National Academy of Sciences estimates it would take 3 million years for spent fuel rods to decay to the same level of radioactivity and risk as the uranium ore it came from.

### WYOMING HAS REPEATEDLY SAID “NO” TO NUCLEAR WASTE STORAGE

- In 1991 the U.S. Department of Energy proposed constructing a “Monitored Retrievable Storage” nuclear waste facility in Wyoming. Gov. Sullivan ended the project a year later, citing numerous concerns that are still applicable today.
- In a 1994 University of Wyoming poll, 80.4 percent of Wyoming residents said they would oppose building a nuclear waste storage facility in the state.
- In 1995 the Wyoming Legislature created a specific law to regulate private and federal nuclear waste storage facilities, resulting in Article 15 of the Environmental Quality Act.
- In 1998 a private company wanted to build a facility to store nuclear waste in Wyoming. Gov. Geringer refused permission for a preliminary feasibility study, as outlined under Wyoming's law, ending the proposal.

### OUR NATION'S FAILED NUCLEAR WASTE LEGACY

- For more than 50 years, our nation has struggled to address disposal of nuclear waste. Currently there are approximately 80,000 metric tons of high-level radioactive waste stored at reactors with over 80 percent of this waste generated in the eastern half of the United States.
- The 1982 Nuclear Waste Policy Act established a multi-site evaluation process for selecting a permanent disposal site with options for “interim” storage elsewhere. In 1987 the Act was amended, identifying Yucca Mountain in Nevada as the only site for a permanent repository.

The amendments also provided for optional “interim” storage, but only with restrictions tying temporary sites to the development of a permanent facility.

- Over the years, Tennessee, New Mexico, Washington, Texas, Louisiana, Mississippi, Utah, Georgia, Maine, Minnesota, New Hampshire, North Carolina, Virginia, and Wisconsin have ferociously opposed “interim” or permanent storage of these wastes in their states. Due to strong opposition from Nevada, the Yucca Mountain effort was halted in 2010. Licensing work was temporarily revived for this site but has ceased again.
- In 2010 the bipartisan Blue Ribbon Commission on America’s Nuclear Future was convened by the Secretary of Energy to review policies and recommend a new national strategy. The Commission’s report, published in 2012, was adopted by the Dept. of Energy, but its recommendations have not been implemented.

## **WHY WYOMING AND OTHER STATES HAVE REJECTED “TEMPORARY” STORAGE OF NUCLEAR WASTE —**

### **THERE IS NO GUARANTEE THAT STORAGE WILL BE TEMPORARY**

- Once a “temporary” facility is constructed, it is likely to become a *de facto* permanent repository for these wastes. There are no legal, political, or financial mechanisms to ensure waste would ever be removed. This is because there is no permanent disposal solution for this waste, despite decades of efforts by the federal government. Congress crafted the Nuclear Waste Policy Act to link the operation of an interim facility to milestones of progress with the permanent repository precisely to prevent such a *de facto* situation.
- In fact, many experts warn that if such a “temporary” site were approved anywhere, it would likely halt the politically difficult effort of creating a permanent disposal solution.
- There is no need for temporary nuclear waste storage. The U.S. Nuclear Regulatory Commission has determined that spent nuclear fuels can be safely stored at the reactor sites for 100+ years.

### **TRANSPORTATION OF WASTES POSES SERIOUS — AND UNKNOWN — SAFETY AND TECHNICAL RISKS**

- The frequency and distance of high-level radioactive waste shipments required for an interim facility will be far greater than any our country has experienced in the past. Some experts estimate more than 100,000 shipments would be transported over 38 years, depending on the size of the facility. The result would be an unprecedented public safety experiment on our rails and roads, and through our neighborhoods.
- The federal government has failed to adopt several important recommendations for ensuring the safe transport of these wastes, including those from the National Academy of Sciences, the Western Governors’ Association, the Nevada Agency for Nuclear Projects, and the Blue Ribbon Commission. Recommendations include:
  - Conduct full-scale testing of actual types of casks to be used for transportation. (Videos of crash tests promoted by proponents are scale models of out-dated casks.)
  - Update safety standards to include long-duration fire scenarios and measures to prevent such incidents.
  - Develop a comprehensive transportation plan, criteria for route selection, and detailed surveys of routes to identify potential long-duration hazards.
  - Conduct a thorough review of the risks of sabotage and terrorism along routes and ensure adequate safeguards are in place.
  - Provide technical assistance and funding to states for a tracking system, emergency response, shipment escorts, and inspections.
- A recent congressional report notes several technical problems with transporting these wastes, including:
  - “Uncertainties about the safety of transporting what is considered to be high burn-up spent nuclear fuel — newer fuel that burns longer and at a higher rate than older fuel — because of potential degradation while in storage.”
  - Some waste is not readily transportable since guidelines for storage allow for higher temperatures and external radiation levels than those permitted for transportation.

- “Current transportation infrastructure, particularly for a mostly rail option of transport ... may not be adequate without procuring new equipment and costly and time-consuming upgrades on infrastructure.”

## **NUCLEAR WASTE STIGMA WILL HURT WYOMING BUSINESSES AND DIVERSIFICATION**

- The history of nuclear facilities creates many negative public perceptions about radioactivity, public health and safety, and vulnerability to accidents and terrorism that can harm our state’s image for tourism, agriculture, our pristine outdoor environment and diversifying our economy.
- Studies in states where such facilities have been proposed (Tennessee, New Mexico, Texas, Nevada) confirm this negative impact to tourism, attracting new residents, agricultural products, diversification of businesses, and property values. The National Academy of Sciences also notes the potential of transportation routes to lower property values.
- Wyoming recently invested millions of dollars and years of experts’ time to develop a plan for our state’s future economic diversification, called ENDOW. Nowhere in that report did Wyoming experts mention the benefits or viability of nuclear waste storage in our state.

## **LEGAL, TIMELINE, AND UNCERTAINTY CONSIDERATIONS —**

- Currently a federal “temporary” storage facility for spent nuclear fuel is not legal under the Nuclear Waste Policy Act. This is because interim storage was only authorized when tied to milestones in the development of a permanent repository at Yucca Mountain. This law would need to be changed by Congress to allow such temporary facilities.
- The prospect of private-sector waste storage raises other uncertainties. It appears that congressional legislation would be needed to allow the use of federal funding for waste transportation and storage at these facilities, and the legality of these projects is unclear.
- Promises of financial payments to the state are unreliable given legal restrictions and congressional inaction on the use of the \$45 billion Nuclear Waste Fund — which is largely targeted for development of a *permanent* repository. Where there are ongoing private storage efforts, these funds are described as going to the company, not to the states.
- Timelines required for implementation are lengthy; there is no quick siting and transportation process. Nuclear Regulatory Commission licensing is estimated to take five to 10 years; transportation infrastructure upgrades, development of the new generation large rail casks and their testing, and railcar procurement will take significant time.

## **IN SUMMARY —**

The history of nuclear waste storage in our country is fraught with broken promises by our federal government, including missed timelines, changing scientific guidelines, shifting strategies, political interference, and disregard of state input. Gov. Mike Sullivan said it eloquently in 1992:

*“Can we trust the federal government or the assurance of negotiation to protect our citizens’ interests? To do so would disregard the geographical voting power in Congress and 100 years of history and experience. ... Let us not deceive ourselves: we are being invited through continuing study to dance with a 900-pound gorilla. Are we willing to ignore the experience history would provide us for the siren song of promised economic benefits and a policy that is clearly a moving target? As Governor, I am not.”*

Wyoming does not need to study this historically failed proposal any further. The regulatory, political, safety, and economic risks we would assume will far outweigh any actual short-term benefits. We urge the Legislature to reject spending any more of the public’s time or resources in such a wrong direction.

In Wyoming, we must create a vision for our future that embraces the assets that truly make us the envy of many other places, and make us a place where people want to live and do business — including our strong public schools, workforce, wildlife, open spaces, legacy of agriculture and

outdoor way of life. Instead of jeopardizing this heritage, our state needs to look forward and build a strong, viable future that protects and builds upon what we value most about our great state.

## WHAT'S NEXT?

- A legislative “Spent Fuel Rods Subcommittee” has been appointed to study this topic and report to the Interim Joint Minerals Committee. The subcommittee is comprised of Senators Jim Anderson (Natrona), Hank Coe (Park), and Eli Bebout (Fremont); and Representatives Donald Burkhart (Carbon), Tom Crank (Lincoln, Sweetwater and Uinta), Shelly Duncan (Goshen), and Joe MacGuire (Natrona). They will meet in Casper (location TBD) on September 5 at 8:30 a.m.
- The Interim Joint Minerals Committee will meet in Casper Nov. 4-5 and hear the subcommittee’s report. Since the full Joint Minerals Committee will have the power to advance legislation, **please contact these members and urge them to reject nuclear waste storage in Wyoming:**

Sen. Jim Anderson ([Jim.Anderson@wyoleg.gov](mailto:Jim.Anderson@wyoleg.gov)),

Sen. Bo Biteman ([Bo.Biteman@wyoleg.gov](mailto:Bo.Biteman@wyoleg.gov)),

Sen. Hank Coe ([Hank.Coe@wyoleg.gov](mailto:Hank.Coe@wyoleg.gov)),

Sen. Chris Rothfuss ([Chris.Rothfuss@wyoleg.gov](mailto:Chris.Rothfuss@wyoleg.gov)),

Sen. Jeff Wasserburger ([Jeff.Wasserburger@wyoleg.gov](mailto:Jeff.Wasserburger@wyoleg.gov)),

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