Where I Stand:

Nevada is winning the war, but Yucca Mountain is not dead

By Bob Halstead

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Editor’s note: As he does every August, Brian Greenspun is turning over his Where I Stand column to others. Today’s guest is Bob Halstead, who recently retired after a 30-year career as executive director for the Nevada Agency for Nuclear Projects.

Unfair. Unsafe. Undead. This is the status of the proposed Yucca Mountain nuclear waste repository project.

The state of Nevada has been fighting Yucca Mountain for more than 32 years. That is more than 11,920 days. For the 10th year in a row, Nevada’s U.S. Senate and House members came home on recess knowing they had again stopped congressional efforts to restart Yucca Mountain. Once again, they know they will have to return to Washington in September and continue the fight.

Unfair. On Dec. 22, 1987, Congress enacted the Nuclear Waste Policy Amendments Act (NWPAA) of 1987, commonly known as the Screw Nevada Act. The new law made Yucca Mountain in Nye County the sole candidate site for the nation’s first nuclear waste repository and deferred any work on a second repository. Rolling the nuclear waste provisions into a massive budget reconciliation act, the House-Senate conference committee screwed Nevada without a recorded vote.

Congress abandoned the earlier promise of regional equity, one repository in the West and one in the East. After the U.S. Department of Energy (DOE) evaluated potential repository sites in 21 states, members of Congress from those states opted for NIMBY — Not in My Backyard. Thirty-two nuclear power states (19 of them potential repository states) played the NIMBY card against Nevada, a state with no nuclear power plant. The prize: 77,000 tons of spent nuclear fuel and high-level radioactive waste from over 100 reactors and three nuclear bomb plants, waste that will remain dangerous for hundreds of thousands of years.

Congress also abandoned earth science for political science. DOE planned a billion-dollar exploratory shaft at each of three sites to determine the safest: a deep basalt formation at Hanford, Wash.; a deep salt formation in Deaf Smith County, Texas; and the tuff formation at Yucca Mountain. A member of the House-Senate conference committee explained to Nevada Congressman James Bilbray: “I hope you understand what is going on here. There are three sites under review — Texas, Nevada, and Washington. And the speaker (of the House, Jim Wright) is a Texan and the (House) majority leader (Tom Foley) is a Washingtonian. … It is not going to Washington. And it is not going to Texas.”

Unsafe. Twenty years and $15 billion later, DOE submitted a license application for Yucca Mountain to the U.S. Nuclear Regulatory Commission (NRC). In 2009 the NRC licensing boards admitted 218 contentions submitted by
the state of Nevada challenging repository safety and environmental impacts. The 200 safety contentions each address a potential fatal flaw that could result in the NRC denying a construction authorization. The full licensing proceeding with trial-like hearings would require several years and several billion dollars. Now after 10 years suspension of the proceeding, many of the models and data used to support the license application no longer exist, and it may be impossible to verify the application.

Most of Nevada’s contentions address geology and hydrology, conditions that make Yucca Mountain unsuitable for a geologic repository. Fractured rock above and below the repository horizon would allow highly corrosive oxidizing groundwater to transport radioactive material from the waste packages into the water table that flows into Amargosa Valley, contaminating an aquifer that is used for drinking water, agriculture and Native American religious purposes. Nevada’s largest dairy is located there. Even DOE’s proposed installation of thousands of titanium drip shields, weighing 10 thousand pounds each, one over each waste package, at a cost of up to $20 billion, would not prevent off-site radioactive contamination of groundwater in Amargosa Valley, and contamination could reach springs on the Timbisha Shoshone Tribe trust lands at Furnace Creek in California.

Other Nevada contentions address transportation — routine exposures, severe accidents, and terrorist attacks. Release of radioactive material in an urban area could cost tens of billions of dollars for cleanup and lost business. Las Vegas would be directly impacted by weekly truck and rail shipments for at least 50 years. More than 10 percent of Clark County residents live within a half mile of the shipping routes. The extent of health effects from routine radiation exposure is subject to debate. But reputational damage is a certainty — stigma and perceived risk, reduced property values and adverse impacts on tourism. We want Las Vegas to be known as the capital of fun, not the capital of nuclear waste.

Undead. Like a zombie locked in a bank vault, Yucca Mountain remains the law of the land. Despite 10 years with no new Yucca Mountain appropriations or authorized workers, the state of Nevada must remain vigilant. In 2010, the Obama administration declared Yucca Mountain unworkable and tried to pull the plug. A federal court order in 2013 forced the NRC to resume the licensing proceeding until it exhausts its remaining funds. Under the Trump administration, the NRC is keeping Yucca Mountain alive by sleep-walking the proceedings, spending a thousand dollars or less per month, a rate that could keep Yucca Mountain alive for years. Even when Sen. Harry Reid was majority leader, the votes were not there to let Nevada off the hook. If the DOE nuclear waste program were safe and profitable, another state would have taken it away from Nevada long ago. Nevada has succeeded in stopping Yucca Mountain from going forward. Terminating Yucca Mountain requires changing the law or convincing the secretary of energy to declare the site unsuitable.

What is to be done. Nevada’s opposition has been unflinching and bipartisan, led by three governors of each major party: Govs. Bryan, Miller, Guinn, Gibbons, Sandoval and Sisolak. Nevada’s Commission on Nuclear Projects, congressional delegation, attorneys general, secretaries of state and the Legislature have been remarkably united across party lines. The Agency for Nuclear Projects, the office of attorney general, and Nevada’s outside legal counsel and technical expert team provide expertise unmatched anywhere in the United States. Of critical importance, the Legislature has appropriated state funding to maintain these efforts. The Legislature first opposed Yucca Mountain in 1989, passing AB 222 that prohibits high-level nuclear waste storage in Nevada, and adopted bipartisan opposition resolutions in 2017 and 2019.

The Nevada Commission on Nuclear Projects 2019 Report spells out what needs to be done on two fronts. First, Nevada must continue supporting the work of the technical and legal expert team, to contest the DOE license application and to confront Congress and DOE with the unsuitability of the site for a repository. Second, the state must continue working with Nevada’s federal delegation to develop new legislation to change the Screw Nevada law.

As the Nevada commission concluded, it is time for the country to finally move past the current failed repository program and recognize that Yucca Mountain is, in fact, the single greatest impediment to solving the waste
problem, preventing the country from going forward with sound and workable solutions.


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