



Cleanup and Accountability

Congress should require DOE to comply with the law and cleanup agreements.

The Department of Energy (DOE) “regulates” itself when it comes to its production and handling of radioactive material. In 2018, DOE took two actions that are contrary to existing laws regarding 1) oversight by the Defense Nuclear Facilities Safety Board, and 2) defense high-level radioactive waste.

On May 14, DOE approved Order 140.1, which limits DNFSB oversight activities, contrary to the requirements of the 1988 law that established the Board. On October 10, DOE opened a public comment period on its “Interpretation of High-Level Radioactive Waste”—an interpretation which would not comply with the 1982 legal definition and the requirement for geologic disposal of such high-level waste.

These changes would reduce worker, public, and environmental health and safety protections and eliminate existing long-term cleanup and disposal requirements for much of the nation’s most dangerous radioactive waste.

DOE Order 140.1

The production of nuclear weapons creates significant contamination that threatens worker and public health and the environment. Congress established the DNFSB to provide independent oversight of DOE weapons sites and the facilities struggling to clean up waste and contamination. The law provides that DOE shall “fully cooperate with the Board and provide the Board with ready access to such facilities, personnel, and information of the contractor as the Board considers necessary to carry out its responsibilities.”

DOE Order 140.1 reduces DOE and contractor communications with

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Nuclear Waste

Congress should not fund consolidated storage of spent nuclear fuel or Yucca Mountain.

Figuring out what to do with spent fuel—highly radioactive waste from nuclear power plants that is dangerous for thousands of years—is an enduring challenge. Federal law has always stated that “Polluter Pays,” making it clear that utilities own the waste and are responsible for current storage. In 1982, Congress passed the Nuclear Waste Policy Act (NWPA), which required utilities to pay into a fund to develop permanent underground repositories and to pay for transportation of spent fuel to disposal sites.

Five years later, Congress amended its waste law to designate Yucca Mountain, Nevada, as the repository, which was to open by 1998. But it did not open. It was not built. The state of Nevada staunchly opposed the repository; it vetoed the site for technical reasons in 2002. But Congress overrode the veto and continued funding the project. In 2008, the Department of Energy submitted a license application to the Nuclear Regulatory Commission for Yucca Mountain. That application has not been acted upon. Congress, since 2010, has not provided funding for the licensing process.

The FY20 budget request of the Trump Administration resurrects Yucca Mountain with a proposal to spend \$38.5 million dollars to restart the licensing process and \$106 million to restart DOE activities.

Currently, virtually all US commercial spent fuel—about 80,000 metric tons—is stored where it is generated, at reactor sites, in pools or dry casks. The NRC estimates it can be safely stored there for 140 years. Hardened On-Site Storage (HOSS) would improve safety at the reactor sites and relieve pressure to develop an unsafe facility at Yucca Mountain.

Private contractors want to profit from the waste dilemma by playing a dangerous game—consolidating the waste. Holtec

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New Nuclear Reactors

Congress should not fund “advanced” nuclear reactor technologies.

Nuclear power is dying. It costs too much money and takes too much time to be an effective counter to climate change, particularly when matched up against renewable energy sources such as wind and solar. Nuclear power uses more water than any other electricity source and produces dangerous nuclear waste. “Advanced” reactors may also depend on a return of reprocessing, which has been the source of the most dangerous and expensive waste cleanup.

Even though the nuclear industry is dying at an accelerating rate, the federal government is trying to save it. The Department of Energy has spent hundreds of millions of dollars on small modular reactors, which are 300 megawatts or smaller, but are still a decade from producing electricity, if they ever come on line.

The earliest scheduled small modular reactor construction comes from Utah Associated Municipal Power Systems (UAMPS). It plans to build 12 NuScale-designed modular reactors totaling 720 megawatts on federal land at the Idaho National Laboratory. They’re scheduled to go online in 2027.

But that won’t happen without billions more in direct payments and indirect subsidies. UAMPS expects taxpayer money to continue to cover at least 50% of the construction costs, now pegged at \$4.3 billion.

Even with taxpayer funding for construction, the electricity is still too expensive compared with solar and wind. UAMPS has not been able to sell all of that expensive nuclear electricity to its own member utilities. So the federal government’s INL intends to lease one of the modules for research. It also will buy its electricity from a second

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and information to the Board and limits the facilities to which the DNFSB has access. The Board responded with a unanimous determination that four parts of the DOE Order are contrary to the law, and public comments at three hearings have confirmed that determination.

- Congress should provide no funding to implement DOE Order 140.1 and instead require DOE to rescind the Order or require it to conform to existing law and past practices. Congress also should maintain the Board's \$31 million annual funding.

HIGH LEVEL WASTE

The nation's most dangerous and expensive radioactive waste contamination problems are from high-level radioactive waste at the Hanford site, Washington; Savannah River Site, South Carolina; Idaho National Laboratory; and West Valley, New York. Those sites receive the large majority of the DOE cleanup funding each year because of that high-level waste contamination from reprocessing spent nuclear fuel. In the Nuclear Waste Policy Act of 1982, Congress clearly defined high-level waste based on its generation source: "the highly radioactive material resulting from the reprocessing of spent nuclear fuel." The law also requires that high-level waste be disposed in geologic repositories.

DOE's new "interpretation" would allow DOE to define some reprocessing high-level waste as "non-HLW" and not require geologic disposal for such waste.

In response, numerous states (including Washington, Oregon, and New York), tribes, and public interest groups have strongly objected to the illegal interpretation, pointing out that the new interpretation also is not consistent with the Tri-Party Agreement that sets requirements for cleaning up Hanford, one of the most contaminated places on earth.

- Congress should prohibit DOE's "interpretation" and provide no funding for its implementation. Congress should also provide adequate funding so that DOE can fully comply with cleanup agreements.

International has applied for a license for storage of up to 100,000 metric tons of spent fuel in New Mexico. Waste Control Specialists/Interim Storage Partners in west Texas also applied for a license for 40,000 metric tons of spent fuel storage. Both sites face strong opposition. Either site would mean hauling highly radioactive waste by rail through major metropolitan areas across the country.

These companies want the government to pay for their facilities with funds from the Nuclear Waste Fund, and they want Congress to change the NWPA so that taxpayers will own the waste and be responsible for transportation and storage.

Other efforts to establish private facilities have failed. In 2006, Private Fuel Storage in Utah received an NRC license to store spent fuel, but has not opened because of significant public opposition. Congress created a Wilderness Area to protect the site, and both the Bureau of Land Management and the Bureau of Indian Affairs took steps to block the project.

The FY20 budget request includes \$10 million for DOE to start "a robust interim storage program."

- Congress should not appropriate funds for Yucca Mountain or consolidated interim storage. Instead, Congress should improve public safety by requiring Hardened On-Site Storage at or near reactor sites.

module, even though the electricity will cost far more than INL currently pays. That plan might expand to other federal sites if UAMPS cannot sell the expensive electricity. Currently federal agencies can only sign 10-year contracts for power. Now, just as the costs of renewable power and battery storage fall, federal agencies are on the verge of signing contracts that could force them to pay nuclear's inflated costs for the next 40 years.

There are steep environmental costs as well. UAMPS would use 40% more enriched uranium fuel than regular reactors to produce a megawatt of electricity. That means it would produce more intensely radioactive spent fuel for which there is no final repository.

DOE is eyeing another generator of intensely radioactive waste: reprocessing naval spent fuel to separate its highly enriched uranium to make high assay, low-enriched uranium (HALEU). The "justification" for this first ever naval fuel reprocessing is that HALEU might be used in "advanced" commercial nuclear reactors if those ever actually materialize. Reprocessing has always created high-level waste, which is dangerous and the most expensive waste to clean up.

- Congress should eliminate the FY20 budget requests of \$10 million for SMRs and \$40 million + for reprocessing to make HALEU.

- Congress should tell DOE and UAMPS that future indirect subsidies will not be funded.

Workers at Hanford High-Level Waste Tank



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