Guest Columns

Why should NM store nation's nuclear waste?

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If the Nuclear Regulatory Commission's conclusion that it's safe to move spent nuclear fuel from nuclear power plants across the country to a proposed storage facility in Lea County sounds vanilla-coated, it's because the draft environmental impact statement for a Consolidated Interim Storage Facility submitted by Holtec International did not address how the casks containing the spent fuel would be transported to New Mexico.

It's likely the casks would be transported primarily by rail using aging infrastructure in need of constant repair. But our rail systems were not built to support the great weight of these transport casks containing thin-wall fuel storage canisters.

Nor was the potential for cracked or corroded canisters to leak radiation studied because an earlier NRC Generic EIS for the Continued Storage of Spent Nuclear Fuel assumed damaged fuel storage canisters would be detected during an intermediary dry transfer system or a pool. But Holtec's proposal only addresses a new destination for the high-level nuclear waste – not the removal and transport of the fuel storage canisters from nuclear power plants to New Mexico.

Even transport casks with canisters that are not damaged will release radiation as they are transported from nuclear power plants to the storage facility, exposing populations along the transport routes in a majority of states and tribal communities in New Mexico to repeated doses of radiation.

Other issues not considered in the draft EIS were the design life of the thin-wall canisters encasing the nuclear fuel rods and faulty installation at reactor sites like San Onofre, or the self-interest of the Eddy-Lea Energy Alliance in using the land it acquired for a consolidated interim storage site.

Thin-wall canisters cannot be inspected for cracks and the fuel rods inside are not retrievable for inspection or monitoring without destroying the canister. NRC does not require continuous monitoring of the storage canisters for pressure changes or radiation leaks. The fuel rods inside the canisters could go critical, or result in an uncontrolled nuclear chain reaction, if water enters the canisters through cracks, admits both Holtec and the NRC. None of us are safe if any canister goes critical.

Yet a site-specific storage application like Holtec's should have addressed NRC license requirements for leak testing and monitoring, as well as the quantity and type of material that will be stored at the site, such as low burnup nuclear fuel and high burnup fuel.

With so many deficiencies in the draft EIS, a reasonable alternative is to leave this dangerous radioactive nuclear waste at the nuclear plants that produced it in dry cask storage rather than multiply the risk by transporting thousands of containers that could be damaged across many thousands of miles and decades to southeastern New Mexico, then again to a permanent repository.

Interim storage of spent nuclear fuel at existing nuclear plant sites is already happening – there are 65 sites with operating reactors in the United States and dry cask storage is licensed at 35 of these sites in 24 states. But since the thin-wall canisters storing the fuel rods are at risk for major radioactive releases, they should be replaced with thick-walled containers that can be monitored and maintained. The storage containers should be stored away from coastal waters and flood plains in hardened buildings.

Attempting to remove this stabilized nuclear waste from where it is securely stored across hundreds or thousands of miles through our homelands and backyards to a private storage facility also raises some thorny liability issues, since the United States will then be relieved of overseeing the spent nuclear fuel in perpetuity. The states and nuclear plants that want to send us their long-lived radioactive waste will also be off the hook, leaving New Mexico holding a dangerously toxic bag without any resources to address the gradual deterioration of man-made materials or worse, a catastrophic event. It's a win/win, however, for Holtec International and the Eddy-Lea Energy Alliance.

Environmental justice footnote: When removal of uranium mine waste on the Navajo Nation was being discussed a few years ago, communities got this response from EPA: Digging up the waste and tr+ansporting it to a licensed repository in different states outside the Navajo Nation – which has always been the Nation's preferred alternative – is the most expensive option. "Off-site disposal, because of the amount of waste in and around these areas, means possibly multiple years of hundreds and hundreds and hundreds of trucks going in and out of the community and driving for miles."