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Weinstein: Allow private facilities to store used nuclear fuel

By Bernard L. Weinstein July 9, 2015

OPINION

Since 1982, electric utilities (which is to say, ratepayers) have paid sizable sums into a Nuclear Waste Fund, an account administered by the U.S. Department of Energy, to cover the costs of permanent disposal of used nuclear fuel. Even after spending \$10 billion at Yucca Mountain in Nevada, which is supposed to be the permanent repository for used nuclear fuel, the fund balance is currently in excess of \$20 billion.

In 2000, the DOE was required by law to take title to the used fuel, which remains in temporary storage at 75 operating and decommissioned reactor sites in 33 states. Nationally, about 75,000 metric tons of used fuel is being stored on site, including 2,430 tons in Texas. But because the federal agency is prohibited from operating any consolidated storage facility until Yucca Mountain becomes available, a logical alternative would be to turn over the development and operations of interim used fuel storage facilities to private companies.

To this end, the U.S. Senate Appropriations Committee has reported out such a bill with bipartisan support. The bill authorizes a pilot program to remove used fuel from permanently decommissioned nuclear sites as a first step toward eventually designating interim storage sites for all used fuel currently being held at active power plants. Already, several companies have announced their interest in accepting this used fuel.

Reprocessing banned for decades

Frequently mistaken for nuclear waste, used fuel contains valuable materials, such as plutonium and uranium, that can be reprocessed to produce more electricity. Reprocessing was once done in the United States, but President Jimmy Carter banned the practice in the mid-1970s on grounds it could lead to nuclear proliferation. Other countries, such as France and Great Britain, did not follow the U.S. example and continue to reprocess used fuel. Here in the U.S., the DOE is currently conducting research on reprocessing, hoping to find a safe and economical way to provide future fuel for America's - and the world's - nuclear power industry.

Waste Control Specialists (WCS), which currently operates a 14,000-acre facility in Andrews County that processes low-level radioactive waste, intends to file a license application with the Nuclear Regulatory Commission to build and operate a project that would transport and store used nuclear fuel from multiple locations in the U.S. and be in operation by 2020. AREVA Inc. and NAC International, companies with extensive experience in used fuel transportation and storage, will work with WCS in the design, construction and operation of the proposed project. The Andrews County site is already fully characterized for radioactive waste storage with the Texas Commission on Environmental Quality.

A call for action

At the same time, just across the state line in New Mexico, the rural counties of Eddy and Lea have formed the Eddy-Lea Energy Alliance partnership to make a pitch for receiving nuclear waste. Used nuclear fuel management company Holtec International has signed a letter of intent with the Eddy-Lea Energy Alliance to build a facility that would utilize its underground storage canister technology.

With the future of Yucca Mountain in doubt, providing interim storage for used fuel currently in repose at both decommissioned and active power plants has become an imperative. Though no new reactors have come on line in almost two decades, America's 100 operating nuclear plants currently provide almost 20 percent of the nation's electricity.

What's more, nuclear energy is the most environmentally benign of all base load power sources, emitting no greenhouse gases, mercury, particulates or other pollutants. Nuclear plants operate around the clock safely and reliably, thereby providing stability to the power grid, and are not subject to the price volatility associated with gas-fired plants.

Though opposed by most environmental groups despite a zero carbon foot print, nuclear power isn't going away. Five new plants will come on line by 2018, while 14 other applications are pending before the Nuclear Regulatory Commission.

Still, without adequate storage for nuclear waste, the long-run viability of America's and Texas' commercial nuclear power industry will remain problematic. To prevent such an outcome, Congress should approve, and President Barack Obama should sign, the Senate Appropriations Committee bill that will allow private facilities to accept and store the nation's large and growing quantity of used fuel.

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