



Nuclear Waste Disposal

Issue. High-level radioactive waste is accumulating at national laboratories, power plants and defense facilities in 131 sites in 34 states. These facilities were designed to manage this material for only a short time. In order for nuclear power to be a viable option for electricity generation in the future, the United States must have a permanent storage facility for spent nuclear fuel and also promote new technologies for reprocessing spent fuel.

Waste Storage Facility: The Nuclear Waste Policy Act of 1982 and its 1987 amendments require the Department of Energy (DOE) to:

- locate, build and operate a permanent, deep, mined, geologic repository for high-level nuclear waste;
- locate, build and operate a "monitored retrievable storage" facility, after the repository site has been determined;
- develop a transportation system that safely links U.S. nuclear power plants, the interim storage facility and the permanent repository.

To pay for these three objectives, the Nuclear Waste Policy Act established the Nuclear Waste Fund into which, since 1982, electric consumers have paid a fee of one-tenth of a cent for every nuclear-generated kilowatt-hour of electricity consumed. Currently, this customer commitment totals about \$20 billion and increases by \$750 million each year.

Of this amount, more than \$600 million has been contributed directly by cooperative consumer-owners who purchase electricity generated by nuclear plants that are co-owned by rural electric cooperatives. Additional funds have been contributed from cooperative electricity purchases from nuclear plants owned by other utilities.

Under the Nuclear Waste Policy Act, the Secretary of Energy in February 2002 made a formal finding of suitability for the Yucca Mountain site, and the President approved the recommendation.

The DOE had been scheduled to submit its application to the Nuclear Regulatory Commission licensing board by December 2005 for a license to build the repository. However, the DOE nuclear waste management program is in a state of transition. The DOE said it plans to send its license application to the NRC in June 2008. The date for opening a storage facility was pushed back to 2018, two decades after the deadline set by Congress.

Eleven cooperatives own shares in 15 nuclear units representing over 3,125 MW of capacity. Dairyland Power Cooperative shut down its 50 MW nuclear reactor in 1987, but has been unable to decommission the reactor due to the continued need for on-site storage of the spent nuclear fuel. Although DOE is responsible for the spent fuel under the Nuclear Waste Policy Act, Dairyland alone has borne the cost of maintaining this shut-down plant, which amounts to \$6 million a year.

Interim Storage: Due to delays in efforts to develop a permanent storage facility, there has been discussion in Congress about proposals for an interim storage facility that would allow the federal government to take control of spent fuel from nuclear power plants until a permanent storage facility opens.

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Spent Fuel Reprocessing: In addition to construction of a permanent nuclear waste storage facility, Congress is considering a change in policy to lift a ban on reprocessing spent nuclear fuel issued by the Carter Administration in the 1970s. The proposed policy change to promote spent fuel reprocessing is based on advanced technologies that separate reusable components from plutonium and other wastes.

While spent fuel reprocessing is not a viable alternative to opening a permanent waste storage facility, it would reduce the volume and radiotoxicity of waste requiring permanent storage without promoting the spread of sensitive nuclear materials and technologies.

However, nuclear waste reprocessing is not a viable alternative to opening a permanent waste storage facility and the opening of a storage site should not become secondary to such an effort. Given the delays at Yucca Mountain, the time has come, however, to develop interim storage options.

Status. The Administration's FY08 budget request for the Energy Department includes \$494.5 million for the nuclear waste repository project. Along with an allocation from the Nuclear Waste Trust Fund, some of the project funding will come from the Defense Department accounts to support disposal of high-level radioactive waste from U.S. defense programs.

The federal government already is several years behind on its commitment to start moving used nuclear fuel from temporary storage sites at nuclear power plants across the nation to a federal repository. Under the most optimistic scenario, it will be several more years before the repository is licensed and operating. Since 1982, consumers of electricity have committed nearly \$23 billion in utility bill fees and interest to cover the costs of this program.

NRECA Position. NRECA supports the Administration's FY08 budget request of \$494.5 million to enable the Energy Department to submit a license application for the waste storage facility to the Nuclear Regulatory Commission.

NRECA supports the Nuclear Waste Policy Act of 1982 and the 1987 amendments to the law, and urges the Congress to provide adequate levels of funding to continue the process to ensure a fully viable geologic repository for high-level nuclear waste. An NRECA resolution states in part: "...We urge Congress to force DOE to fulfill its obligations under the Nuclear Waste Policy Act by accepting spent fuel."

NRECA's resolution supports "...private and public interim storage facility proposals to provide additional flexibility for storage of spent fuel pending the opening of Yucca Mountain." Development of an interim facility would help to resolve on-site spent fuel storage issues at nuclear power plants that are waiting for the federal government to fulfill its obligations under the Nuclear Waste Policy Act.

While NRECA does not know enough about the Administration's spent fuel reprocessing initiative to comment on it, NRECA supports the concept of fuel reprocessing. NRECA supports a reexamination of Executive Orders issued by the Carter Administration during the 1970s to prohibit reprocessing of spent nuclear fuel "in order to more efficiently utilize the energy contained therein and reduce the spent fuel storage volume." NRECA does not believe reprocessing option is an alternative to developing a long-term waste storage facility and NRECA does not want any reprocessing initiative to slow down development of a storage facility.

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