



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D C 20555

January 10, 1992

The Honorable Bob Graham
United States Senator
P.O. Box 3050
Tallahassee, FL 32315

Dear Senator Graham:

I am responding to your letter of December 20, 1991, in which you requested information for your constituent, Edward McCarthy, concerning the disposal of Florida's nuclear waste. Nuclear wastes are generally categorized as either high-level or low-level, based on the amount of radioactivity they contain and their potential for affecting public health and safety.

At present no facilities are available in the United States for permanent disposal of high-level waste. Most of this material consists of used fuel elements, removed from reactors at nuclear power plants and stored under water in specially designed cooling pools at the plant sites. This interim storage strategy is being utilized at the nuclear power plants located in Florida. Congress, in the Nuclear Waste Policy Act of 1982, gave the Department of Energy (DOE) responsibility for siting, constructing, and operating a repository for final disposal of high-level waste. Under a 1987 amendment to this legislation, it was specified that Yucca Mountain, Nevada, be given initial consideration as the site of this repository.

The Nuclear Regulatory Commission (NRC) is responsible for licensing the DOE repository if it meets safety and environmental standards. Those standards, found in Part 60 of Title 10 of the Code of Federal Regulations, require containment of the waste for a period of hundreds of years and then limit the rate at which any radioactive materials that ultimately escape from containers can be released to the repository environment. They also limit the amount of radioactivity that will be permitted to migrate to the groundwater after containment has been breached.

The DOE has developed a detailed plan to evaluate the site at Yucca Mountain. If no flaws are discovered that disqualify the site, and assuming that no unresolvable safety problems arise during repository construction, the nation will ultimately have an acceptable location for the disposal of high-level waste. If, for some reason, Yucca Mountain cannot be qualified, the Secretary of Energy must provide recommendations to Congress for alternate approaches to ensure the safe, permanent disposal of the material. In the meantime, spent fuel can be safely stored in reactor cooling pools or, after sufficient aging, in air-cooled storage casks located at the reactor sites or, possibly, at a DOE constructed and operated Monitored Retrievable Storage (MRS) facility. Construction of an MRS at this time is contingent upon NRC authorizing DOE to construct a repository for final disposal.

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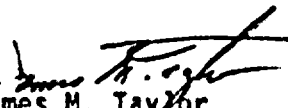
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Low-level waste, on the other hand, is currently being disposed of at three active commercial burial sites: Beatty, Nevada; Barnwell, South Carolina; and Hanford, Washington. Low-level waste is considered to be any waste that is not classified as high-level waste. While disposal of low-level waste is not a problem at this time, current law requires the phasing out of the commercial burial sites, to be replaced by low-level waste disposal sites operated by the states or by groups of states (compacts). Under the compact concept, one state in the compact builds a disposal facility for all members to use until it is filled to capacity; then another state in the compact is selected to repeat the process. Florida is a member of the Southeast Compact, of which North Carolina will be the first host state. The NRC is responsible for providing guidance to states which are planning to design, construct and operate low-level waste disposal facilities and is also responsible for licensing these facilities, unless located in an "Agreement State", in which case the state will regulate the facility. (An "Agreement State" is one which has entered into an arrangement with NRC, permitted under the Atomic Energy Act, to regulate the use of certain radioactive materials and facilities within the state's boundaries. NRC's responsibility then becomes one of monitoring the state's performance under the agreement.) NRC regulations governing low-level waste disposal are found in Part 61 of Title 10 of the Code of Federal Regulations.

I trust this provides the information requested by your constituent, Mr. McCarthy.

Sincerely,


James M. Taylor
Executive Director
for Operations