



Department of Energy

Washington, DC 20585

OCT 06 1986

Honorable Martin O. Sabo
House of Representatives
Washington, D.C. 20515

Dear Mr. Sabo:

Thank you for your letter dated September 13, 1986, enclosing correspondence from your constituent, Mr. T. Christopher Wright. We appreciate your constituent's suggestion regarding the placement of high-level radioactive waste at the Nevada Test Site (NTS).

Since the underground nuclear weapons tests at NTS safely contain highly radioactive material in the nuclear explosion, it would seem that other highly radioactive materials might also be placed there. Similar proposals have been studied by the Department of Energy (DOE) but were rejected because of technical and operational constraints.

After a nuclear weapons test, the cavity created by the explosion lasts from several hours to several days. This cavity is destroyed when the column of earth above the cavity collapses. Even if the cavities remained intact, they would not be a good place to dispose of the waste. The cavity from a weapons test is small compared to the size of a repository. Its utilization would require that heat-producing high-level radioactive waste be concentrated in a small volume. This configuration would result in the creation of a relatively high temperature spot within the earth that would threaten the isolation capability of the geologic formation. Repositories, on the other hand, are based on the principle that the radioactive waste is distributed over a large area beneath the surface thereby minimizing the temperature increase that would occur underground due to the presence of the waste.

We appreciate your interest in this matter and hope this information helps you respond to your constituent's concerns.

Sincerely,

A large, stylized handwritten signature in black ink, appearing to read "Roger W. Gale".

Roger W. Gale, Director
Office of Policy and Outreach
Office of Civilian Radioactive
Waste Management

Enclosure
Constituent's Correspondence