

NUCLEAR WASTE

Military going underground

Boston

PLANS by the US government to open a permanent disposal site for its military nuclear waste took a step forward earlier this month when the Environmental Protection Agency (EPA) allowed a five-year test period to begin at a federal repository tunnelled into salt beds half a mile below the New Mexico desert. The EPA's decision, coming 15 years after work began on the site, is a belated victory for the Department of Energy (DOE), but several vexing problems remain before the site can open officially.

The EPA's ruling exempts the repository — the Waste Isolation Pilot Plant (WIPP) — from the full requirements of the US hazardous waste laws in order for the DOE to proceed with tests.

During the test period, DOE will monitor the wastes to ensure that they do not migrate out of the repository or generate gases that could become volatile if trapped in the underground salt beds that provide WIPP's geological containment.

EPA issued a variance of its normal

rules, which would have forbidden the transportation of radioactive and mixed hazardous wastes to the New Mexico site from nuclear production facilities around the country. Even so, thorny debates over the DOE's title to the land and the method of safe waste transport must be resolved before operations at WIPP can proceed. Also clouding the facility's future is the likelihood of legal action against the facility by local residents, state authorities and national environmental groups.

According to EPA officials, the variance requires the waste to be stored in a "readily retrievable" form during the test, and permits the handling of "no wastes for purposes other than testing". In addition, EPA will limit the amount of waste shipped in the five-year test period to 8,500 drums of material — less than one per cent of the repository's total planned capacity.

WIPP is intended to store transuranic waste, which consists of a wide variety of plutonium-contaminated materials from the production of nuclear weapons, but which does not include high-level nuclear wastes such as the spent fuel rods from nuclear reactors. The transuranic waste, ranging from waste water and sludge to soiled equipment and clothing, is currently piling up in drums in temporary storage facilities at ten DOE facilities around the country. Many of the drums also contain hazardous chemical wastes mixed in with the radioactive materials, a factor that allowed the EPA to exercise some regulatory jurisdiction over the programme in the first place.

DOE officials are relieved to see the WIPP site moving forward.

Late last year, DOE Secretary James D. Watkins described the opening of the WIPP facility as his "top priority". EPA hydrologist Reed Rosnick emphasized, however, that the variance is limited solely to the test phase. "The EPA decision will not alleviate the problems of waste storage at DOE because of the small amount of waste allowed", he said. In addition, Rosnick stressed, if during the test phase it were determined that the WIPP facility cannot meet the required safety criteria, "all bets would be off" as to the facility's future.

The facility has been plagued by unexpected problems since work began in 1975. Worries over excessive water seepage have now been allayed, as have concerns that cracks in the salt formation rendered the tunnels less stable than expected. But the latest worry is that accumulated gas pressure from the decaying waste could far exceed what the surrounding rock can bear, and possibly cause the waste to explode.

On top of these technical concerns, a

variety of administrative and political hurdles remain, not the least of which is that the DOE must acquire title to the land from a branch of the Department of the Interior. Congress failed in its last session to authorize the land transfer, and the DOE is now expected to try to gain title through an inter-agency agreement. But such an arrangement could be open to legal challenge. Meanwhile, a collection of environmental groups, including the Natural Resources Defense Council, is considering legal action on the grounds that the EPA is offering a variance to the US government that would not be given to a private firm.

Federal regulations for the facility also require that the government considers the issue of "human intrusion" which could breach the planned environmental safeguards and potentially prove hazardous to future generations (See *Nature* 344: 576 1990). The issue emerged most recently this spring at a meeting of the panel of the National Academy of Sciences that was overseeing the progress of the WIPP site. So far there has been no agreement on how to mark and protect the WIPP facility against intruders for the next 10,000 years.

Seth Shulman

EUROTAXONOMY

Carrots to lose their roots in fruity future

London

BRUSSELS-based bureaucracy has struck at the carrot, a root tuber that from 1 January 1991 is to be declared a fruit — at least for

Mary Evans

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Rooti fruitti

jam making. The European Communities (EC) Jam Directive insists that jam must only be made from fruit. Jam made from carrots, however, is popular in Portugal. In a concession to a member nation that reveals a certain diplomatic ignorance of botany, EC officials changed the status of the carrot so the Portuguese could still make carrot jam and sell it as such.

Cooks will now ponder the implications of the new move. If the carrot is now a fruit, then ginger — another root used to make jam — must be a fruit as well. Carrots will always be vegetables, regardless of EC directives. But if they are sold as fruits, wherefore the marrow and the tomato, fruits sold as vegetables that are nevertheless used to make jam? Henry Gee

BIOTECHNOLOGY

Bush veto fuels orphan drug act uncertainties

Washington

PRESIDENT Bush last week unexpectedly announced that he would not sign a bill that would prevent companies from reaping windfall profits under the provisions of the orphan drug act, a law that grants commercial and legal advantages to companies that develop drugs for rare diseases (see *Nature* 348, 101; 1990). The bill, which was passed by Congress last month, will not now become law.

Objections raised by Health and Human Services Secretary Louis Sullivan last June — that any change in the law would be a disincentive to investment in the development of orphan drugs — may have influenced the decision taken by President Bush.

Industrial Biotechnology Association president Richard Godown, who was for similar reasons initially opposed to any change in the law, had nevertheless urged the President to sign the bill because he felt that "a genuine compromise had been reached". Godown is now concerned that the biotechnology companies will have to suffer through several more years of additional wrangling over the orphan drug act, which will in turn hinder companies' ability to raise capital and raise the spectre of more restrictive legislation emerging from the next session of Congress.

Diane Gershon