

Nevada May Lose Nuclear Waste Funds

Senator Bennett Johnston (D-LA), the driving force in Congress's decision last year to make Nevada the home of the nuclear waste repository, executed another sharp maneuver this month, Nevadans say. Johnston has nearly persuaded Congress to cut back funding for an independent, state-run evaluation of Yucca Mountain, Nevada, the site where the Department of Energy (DOE) wants to bury the civil reactor waste.

The effect, according to Nevada officials, will be to gut their plans to build up a separate database. They say they wanted to use it to keep DOE's environmental studies honest, essentially to justify arguments that DOE should go elsewhere. The federal research is suspect, state officials think, because it tends to prop up a decision already made rather than look for problems. They feel that their own research is being hobbled just as it has begun to raise questions.

An amendment to curtail the local research zipped through a subcommittee Johnston heads on 7 June, cleared the appropriations committee on 9 June, and passed the Senate on 14 June. It cuts back the generosity of the Nuclear Waste Policy Act, which originally paid state and local governments to "monitor" the site selection process. The intent was to reassure states that DOE was being entirely above-board in its methods. But when Congress killed the technical review last year and replaced it with a political choice (*Science*, 1 January, p. 15) the need for such reassurances diminished. While Nevadans still must be reassured, Congress apparently sees this, too, as a dwindling requirement.

DOE asked for \$29 million to support these state-run research programs in 1989, and Nevada thought it would get \$23 million. Now, if the Johnston amendment holds, only \$16 million will be available to Nevada, with roughly one-third earmarked for towns and counties. Unlike the state, local governments tend to be more welcoming of DOE.

Nevada will have to cut its research plan nearly in half. Technical director Carl Johnston says the first items to be dropped will be a seismic monitoring network and a sophisticated dry drilling program. (Nevada officials call the DOE drilling program "worthless." They claim DOE contaminated a test site with water and failed to establish good quality control.) Economic and social impact studies will be cut short as well. In addition, state officials are worried about a section of the Johnston amendment that forbids "duplication" of DOE's work. "We

won't be able to conduct an aggressive review without the ability to go out and collect our own data," says Robert Loux, director of Nevada's Nuclear Waste Project Office.

A Senate aide who worked on the legislation brushes the criticism aside, saying, "\$16 million is quite a lot of money; it's not as though this program is being starved." He says a notion grew up that the states were entitled to second-guess everything DOE does, but "that was not the intent of Congress." Furthermore, there is a "strong suspicion" that states used the funds to fight DOE in court and in Congress. (Loux concedes this is so, but argues that DOE also

used the funds to lobby and litigate.) Congress sees this as a waste. Finally, the aide says, some of the hue and cry may come from hungry contractors. Nuclear repository studies are "no longer a growth area in the federal budget," according to the aide, and "a lot of people out there are wondering where the next grant will come from."

Ironically, while Nevada may be denied some of what it wants in the way of information, it will not be denied a nice plum in the category of information machinery. As part of the reward for serving as host to the DOE program, the state university at Las Vegas will receive a top-of-the-line supercomputer, known as the ETA-10, made by the Control Data Corporation. It will cost \$30 million and will be financed by DOE in annual installments of \$6 million over the next 5 years. ■ ELIOT MARSHALL

Acid Aerosols Called Health Hazard

In a major decision, a key science advisory panel of the Environmental Protection Agency (EPA) on 8 June recommended that the agency should set a standard on acid aerosols to protect public health.

Until now, acid deposition has been widely considered to be a serious ecological problem, but not a threat to human health. The panel, however, said a growing body of evidence from animal and human studies indicates that acid aerosols may affect people's health. Acid aerosols are generated largely by sulfur dioxide and nitrogen oxides emitted by coal-fired plants.

Panel chairman Mark Utell of the University of Rochester said in an interview, "The vote points out that the scientific community has voiced concern that there is a possible relationship between acid aerosols and health effects." The data from animal experiments and clinical and human epidemiological studies have consistently indicated over the past few years "that there is a potential problem," Utell says. "We're not talking about an overwhelming database, but the science has gotten stronger from all three approaches."

The acid aerosols subcommittee voted 10 to 1 (with 1 abstention) to recommend that the EPA administrator set a standard on acid aerosols by formally listing it as a "criteria pollutant" under the Clean Air Act. The sole vote against the recommendation was cast by George Wolff, senior staff research scientist at General Motors Research Labs. Robert Phalen of the University of California abstained.

It would be highly unusual for the agency not to follow the advice of the panel. If and when the EPA administrator does list acid

aerosols as a criteria pollutant, the agency is required under the Clean Air Act to propose a rule within 12 months. Such a decision would represent the first time a new pollutant has been added to the original roster of pollutants included in the Clean Air Act that was passed by Congress in 1971.

The subcommittee did not recommend a specific standard.

Published animal studies indicate that exposure to acid aerosols, such as acidic sulfates, at concentrations slightly above the high end of ambient levels impairs the ability of the upper respiratory tract and also the deep parts of the lungs to clear themselves of harmful particles.

The findings of two human studies of exercising asthmatic adolescents "are worrisome," Utell says. According to the results, the ability to breathe out air decreased after exposure to concentrations not much above ambient levels observed in field studies in the Northeast. Preliminary findings of an epidemiological study in six cities indicate that the incidence of bronchitis among children is correlated with hydrogen ion concentrations outdoors.

Bruce Jordan of EPA said, "if you take any one piece of data, it's full of uncertainty. But if you look at it in totality, there are strong suspicions that acid aerosols might be affecting human health."

The panel's recommendation provides supporters of acid rain legislation with additional ammunition, but Congress still appears to be at loggerheads over acid rain bills. A compromise proposed last month by the governors of New York and Ohio on acid rain controls is seen as a possible break in the stalemate. ■ MARJORIE SUN