

## AEC decides to store wastes on surface

One of the Atomic Energy Commission's many pesky problems has been to find an acceptable repository for the radioactive wastes produced by nuclear power plants. Plans to locate a national underground repository in an abandoned salt mine near Lyons, Kans., have run into considerable opposition from geologists, who warn that much more study is needed before a decision to begin storing wastes there can be made (SN: 3/6/71, p. 161).

The AEC estimates that some kind of repository will be needed by 1980, and has decided on alternative action. Last week the agency announced that it plans to design and build surface storage facilities for commercial atomic wastes. Said AEC Chairman James R. Schlesinger: "We are surveying a variety of options for long-term storage of radioactive wastes and will proceed vigorously with a proved method—engineered surface storage—so that the public as well as industry has complete confidence that adequate and safe facilities are available for handling the wastes for the foreseeable future. . . . The engineered surface facilities will be designed and operated so that the waste can be safely isolated for centuries if necessary."

The location of the facility is yet to be determined; it may or may not be at Lyons. There may, say AEC spokesmen, be either a single national facility or several regional repositories. Wastes from individual plants would be chemically processed to recover uranium and plutonium, solidified and allowed to cool for several years before being transferred to the central repository.

Surface storage facilities are in use at various AEC plants around the country, with varying degrees of success. There has been some leakage of wastes at the Hanford Reservation in Washington and the Savannah River Plant in South Carolina, but these wastes were in the more corrosive liquid state and the new storage tanks will be of a different design. The consensus is that surface storage is *potentially* as safe as underground storage, provided there is constant technical surveillance. The need for constant monitoring, with periodic replacement of containers, is the method's major drawback, and adds considerably to the cost of storage.

Meanwhile, the AEC has not given up on underground storage, and says it plans to build a pilot underground storage plant where solidified wastes would be deposited and monitored for several years. Oak Ridge National Laboratory and the U.S. Geological Survey will be responsible for choosing a site by this time next year. The pilot

facility would be small, but could be expanded if it proves feasible, and wastes could be transferred to it from the surface repository. By about the mid-1980's, says Schlesinger, the agency will be able to decide which type of storage to pursue. Funding for the first surface storage bunkers and for the underground pilot repository, he says, will probably be included in the budget for fiscal 1975. □

## The U.S. at Stockholm: Scientists all Federal

The political aspects of the United Nations Conference on the Human Environment, which starts in Stockholm June 5, have tended to overwhelm consideration of technical progress that might be made. The political problems are serious. It is possible, for instance, that most of the Eastern bloc will boycott the conference because of East Germany's exclusion as a voting delegate. Nevertheless, there could be important technical progress, which may hearten those who do not have over-optimistic hopes for the conference.

Still, the make-up of the U.S. delegation provides some grounds for pessimism. Among its some 60 members will be 25 scientific advisers and observers. All of them are Federal officials, with what appears to be a disproportionate representation from the less-environmentally-minded Federal departments such as State, Defense and Commerce. The rationale for appointing all civil servants as advisers apparently was that they will officially represent the United States at Stockholm. But as Federal employes, they will be hamstrung in advising any deviation from the official line to be taken by the working delegates; it appears more perspective might have been provided for these delegates had independent academicians been included among the advisers. Incidentally, there is little advance information on just what positions the U.S. will take. State Department officials, who appear to be running the show for the United States, have been closemouthed on such matters as how seriously the delegation takes the recommendations of *The Limits to Growth*, a conference document that calls for major changes in patterns of resource consumption and economic growth (SN: 3/25/72, p. 202).

But on certain issues, there is little controversy. Christian A. Herter Jr. of the State Department, who heads a U.S. subdelegation on institutional arrangements, agreed at a press conference that there is a clear need for environmental monitoring systems, particularly to measure the worldwide atmospheric effects of carbon dioxide and particulate pollution. Likewise, the need for conventions against ocean dumping

of harmful substances is unchallenged. As Maurice F. Strong, United Nations under secretary for the environment points out, these are the kinds of matters the United Nations traditionally has handled well.

Six committees will be created at Stockholm and three of them will be meeting at any given time, while a plenary session will continue throughout the two-week conference. Heading the U.S. subdelegations to the committees (besides Herter) will be William D. Ruckelshaus, administrator of the Environmental Protection Agency, subdelegation on pollution; Secretary of the Interior Rogers C. B. Morton, natural resources; Laurance S. Rockefeller, human settlements; Gordon J. F. MacDonald of the President's Council on Environmental Quality, environment and development, and Roger O. Egeberg, a Presidential consultant, subdelegation on information and education. Most of the subdelegation heads are known for their environmentalist or humanist stances. Likewise for CEQ Chairman Russell Train, who will be chief U.S. delegate. These choices provide some grounds for optimism by environmentalists. □

## The busing issue: Fuel for the fire

The findings of the 1966 Coleman Report on educational equality gave impetus to the idea that busing to achieve economic and racial integration could be a means of ensuring equal education for disadvantaged blacks. But a recent reevaluation of Coleman's data (SN: 3/18/72, p. 182) seems to indicate that he may have overstressed the effects of integration on education.

David J. Armor of Harvard University, one of the reevaluators, says Coleman's findings were confusing. To settle some of the issues raised, he undertook a five-year study of the effects of busing in one Western and five Northern metropolitan schools. In a paper scheduled for publication in the summer issue of *THE PUBLIC INTEREST*, Armor reports that busing did not raise the achievement scores of blacks, it did not improve black students' aspirations and, instead of reducing racial tension, busing led to heightened racial identity and solidarity. Some of these results, the report suggests, are due to higher grading standards in white schools and to the new black militancy and pride.

Armor, who advocates voluntary busing, says long-term effects will not be visible until these children reach adulthood. In the short-term, however, the busing issue is delaying passage of a higher education bill that would appropriate \$18.5 billion during the next three years. □