

which specifically addresses the points that Gish raised in his presentation. "Make no mistake," says Mayer, "there will be a big response to the debate and we have to be ready to counter it. We have to ensure that teachers and college professors have the appropriate information in pithy form so they can answer reporters' questions when the time comes."

All agreed that point by point the creationists' arguments can be readily dealt with. The problem that individuals face in reacting to creationist arguments is being able to slip with facility from questions of biology, to geochemistry, to astronomy, to geology, and to all the other sciences over which such questions typically snake. The creationists have a booklet called "A handy dandy evolution refuter," so why should the evolutionists not be armed likewise?

Aside from the facts of the case, both the NAS and NABT meetings recognized the social and political arena in which the creation-evolution confrontation usually takes place. "In many ways we are facing a strictly political problem," comments Mayer. "While we were sitting around thinking about the issues, legislation was being railroaded through in Arkansas. In addition to getting information to people we have to be ready for action at the local level."

Sensing the need for grass roots action against legislative and other initiatives by the creationists, Stanley Weinberg, a retired biology teacher in Iowa, set up 1 year ago a network of committees of correspondence. "American politics are local politics," says Weinberg, "and committees of correspondence are a standard method of political action."

So far there are committees in 37 states, the smallest of which has a membership of nine, the largest 300. Weinberg acts as a coordinator, sending a newsletter and lists of relevant people and sources through the network. The aim is to enable local communities to react to initiatives by the creationists, by providing the names of people in the area who can respond authoritatively and by assembling resources. Participants at both Washington meetings were greatly impressed by the network and agreed that ways should be sought to develop it further. "We are very thinly spread," says Weinberg, "and our scope is limited at the moment. The expenses are met by dues from members, but very often the person who runs the committee, the liaison, has to meet costs from his own pocket."

A case that illustrates very clearly the

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Reagan Pledges Support for TMI Cleanup

The Reagan Administration has promised a substantial contribution to the cleanup of the damaged nuclear reactor at Three Mile Island. At a Republican fund-raiser near Harrisburg, Pennsylvania, on 9 October, budget director David Stockman said that "over \$100 million" would be funneled into the cleanup, chiefly for research on the fuel core. Stockman's promise was followed by a written pledge of help on 19 October, signed by presidential counsellor Edwin Meese.

Writing to Pennsylvania Governor Richard Thornburgh, Meese noted that the President had already agreed to have the Department of Energy (DOE) spend \$37 million in fiscal 1982 for work at Three Mile Island. "I wish to assure you," Meese continued, "that the President intends to request from Congress sufficient funds in future years to complete the identified DOE program. . . . This will include a total of approximately \$75 million (including FY 1982) to carry out the program approved by the President last spring, as well as a total of \$48 million (including previously appropriated funds) to complete the activities initiated under the agreement with EPRI [Electric Power Research Institute]."

However, Meese wrote, the government would have to limit its help to those areas which are of general benefit or are related to "its unique responsibilities under the Atomic Energy Act of 1954 to ensure safe disposal of nuclear waste." The commitment is not open-ended. Meese indicated that the DOE would "provide technical assistance to clean up the water in the building basement; remove and dispose of abnormal wastes not disposable at commercial sites; remove and evaluate the damaged reactor core; develop special tooling needed for early core access; and other appropriate activities consistent with these guidelines." In closing, he said that the financial burdens created by the accident would have to be borne by those "who produced and used the electric power from the facility, not the federal government."

Governor Thornburgh counts it a

victory to have extracted this pledge, limited though it is, from a White House which is cutting spending in nearly every other area. Thornburgh has been campaigning around the country since July to win backing for a cooperative financing plan to help the local utility pay for the \$1 to \$1.3 billion decontamination project. He managed to solicit one large pledge from the Edison Electric Institute, which represents investor-owned utilities. Its board voted last month to raise \$192 million over the next 6 years. Reagan's contribution falls \$70 million short of what Thornburgh sought, but Thornburgh calls it a "breakthrough of enormous significance."—*Elliot Marshall*

Gorsuch Defends EPA Meetings with Industry

The two top administrators of the Environmental Protection Agency recently defended the propriety of meetings held this summer between agency officials and chemical industry representatives. Despite sharp bipartisan criticism at two House subcommittee hearings, EPA administrator Anne M. Gorsuch and deputy administrator John Hernandez insisted that the meetings were not policy-setting sessions and were convened only to discuss scientific issues. Critics of the meetings, including the Natural Resources Defense Council, argue that these sessions, which were not publicly announced, appear to have persuaded EPA against regulation of formaldehyde and di(2-ethylhexyl) phthalate (DEHP) (*Science*, 30 October, p. 525).

Toby Moffett (D-Conn.) told Gorsuch and Hernandez at a hearing on 21 October that the sessions may have violated a federal law that requires agencies to give public notice of meetings with private individuals. Moffett is chairman of the environment, energy, and natural resources subcommittee of the Government Operations Committee.

The EPA officials denied any wrongdoing. "We deliberately stayed away from policy questions at the meetings," Hernandez said. But Moffett and other subcommittee members hammered Gorsuch and Hernandez

with criticism for failing to announce the sessions, to invite consumer or environmental groups, and to have a transcript made of the meetings.

Gorsuch held her ground. "No one who requested to be at the meetings was denied," she said.

"But no one knew about them," retorted Barney Frank (D-Mass.).

The next day EPA officials were again grilled about the meetings by the Science and Technology Committee's subcommittee on natural resources, agriculture research, and environment. When asked about the format of the "science courts," as the meetings have been called by the Formaldehyde Institute in a letter to Hernandez, the agency administrators objected to the use of the term.

Gorsuch said icily, "I cannot be responsible for someone else's characterization of the meetings."

The only time that Gorsuch conceded anything to either subcommittee was 2½ hours into the Moffett hearing when she said, "In hindsight, the meetings could have been improved by giving public notice."

Hernandez defended the agency's plan to revamp the internal peer review process that will be modeled on a system now used by the U.S. Geological Survey (*Science*, 18 September, p. 1345). He conceded before the subcommittee that the system is slow but added that "it will increase credibility and give EPA scientists better confidence in their work."

—Marjorie Sun

Ocean Drilling Program Loses Oil Industry Funds

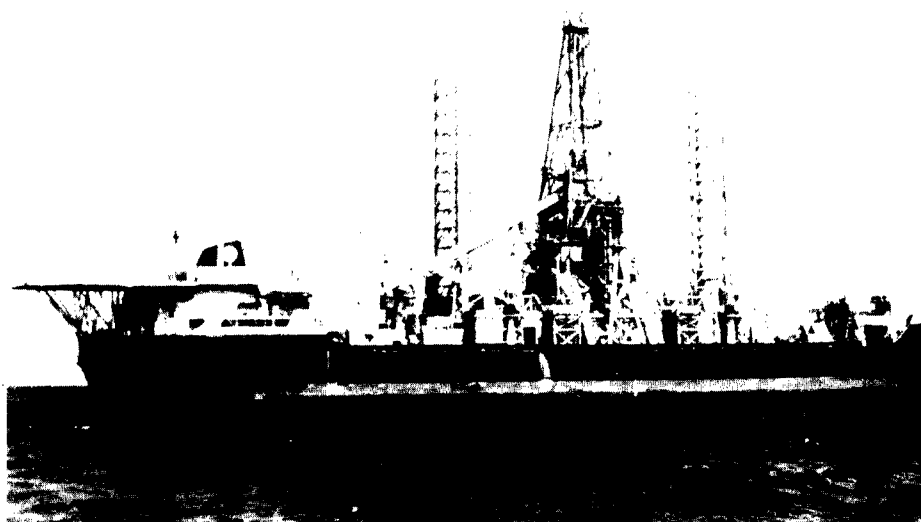
The future of the National Science Foundation's (NSF's) deep-ocean drilling program is again in doubt. On 5 August, NSF announced a plan to convert the ex-CIA salvage vessel *Glomar Explorer* into a drilling ship for research in currently inaccessible areas such as icy seas and some ocean margins (*Science*, 21 August, p. 851). But that plan, the product of years of debate and negotiations, has fallen apart because the oil industry has declined to provide crucial financial support.

At issue is what will happen to scientific ocean drilling when NSF's cur-

rent research vessel, *Glomar Challenger*, reaches the end of its planned program in fiscal year 1983. NSF had proposed refurbishing the *Explorer* and putting it to work soon after the *Challenger* is retired. Between 1983 and 1987, the *Explorer* would have continued the program of drilling in the deep oceans. Then, in 1987, NSF planned to equip it with a riser and blowout preventers, which would permit drilling in the ocean margins where oil and gas deposits may be

more companies should be involved to help spread the costs, but no others could be persuaded to join.

As a result, "the ocean margin drilling program is really dead now as originally perceived," says an official in NSF's Office of Scientific Ocean Drilling, and NSF is rethinking the whole program. Four options are under study. The most drastic is to cease scientific ocean drilling when the *Challenger's* current program ends in 1983. The second option is to



Glomar Explorer

encountered. Thus, by the late 1980's, the *Explorer* would, according to the plan, be capable of drilling in a broad range of scientifically interesting areas.

But all this would be expensive. Although there are no firm cost estimates for converting the *Explorer* and equipping it with a riser and blowout preventer, the operating costs alone are estimated at about \$60 million a year. NSF thus sought financial support from the oil industry, which stands to benefit from the development of deep-ocean drilling technology. When the plan was announced, a consortium of ten oil companies tentatively agreed to provide \$18 million a year to support the program, but at a meeting with NSF officials and outside scientific advisers on 6 October, the consortium announced that it is withdrawing as a full partner in the venture. The reason, according to NSF officials, is that the consortium felt that

extend drilling with the *Challenger* until 1988. The third is to convert the *Explorer* but not add the riser and blowout technology. And the fourth is the full-fledged program announced by NSF in August. A final decision is expected to be made in January.

If a drilling program does go ahead without industrial participation, NSF will seek support from foreign countries. Five countries are now contributing \$1.2 million a year to the *Challenger* program, but they may not have participated in a venture that would have directly benefited the U.S. oil industry.

An ironic footnote to the problems with the deep-ocean drilling program is that the Reagan Administration has been arguing that cuts in federal support for science and technology will be offset by increased R & D spending by private industry. In this case, at least, that assumption appears to be invalid.—**Colin Norman**