

Coalition to Save Our National Forests, representing a number of environmental lobbying organizations.

According to Thomas Barlow—who is taking time off from the Natural Resources Defense Fund to run the coalition—the purpose of the bill is to put into law basic management guidelines, some of which are already Forest Service policy, others of which are needed to bolster the service against what is perceived by environmentalists as a steady and perhaps unwitting slide into the lap of the timber industry.

The most visible feature of the bill is its restrictions on clear-cutting. None would be allowed in the eastern hardwood forests except for purposes of benefiting wildlife or salvaging damaged timber. In the West, where softwoods prevail, clear-cuts would be limited to 25 acres (the Forest Service is now generally trying to keep them under 40 acres but they are far larger in some places, particularly Alaska). The bill would supersede the Organic Act by permitting the cutting of immature trees where they are included in a stand of predominantly

mature ones or for other purposes such as thinning or improving habitat.

Also basic to restoring balanced management, in the minds of the Randolph bill's supporters, is making sure that both even-age and uneven-age practices are used. Even-age (which means cultivating a stand so that trees are all about the same age) predominates in the West and is closely associated with clear-cutting. The bill says no single system should predominate.

An implicit premise of the bill is that "multiple use—maximum sustainable

Science in the European Community: Deadlock on Fusion

Nine months ago, the science ministers of the European Economic Community (EEC) were supposed to decide on the future of a large project planned to be the keystone of fusion power development in Europe. Like similar Russian and American experiments, the Joint European Tokamak (JET) is intended to be a giant step in the direction of a magnetic vessel large enough to prove the principle of contained thermonuclear power. Many observers thought the European plan was the most versatile of the three, and last July, when the ministers were first due to act, it was moving on a schedule some months ahead of the American version, and several years ahead of the Soviets.

Not unexpectedly, the fusion project has run into political difficulties. In a time of recession and tight budgets, the nine common market (EEC) countries have been slow to commit funds for the project, but quick to argue the benefits of constructing the \$200 million facility within their own borders. Disagreements over the choice of a site for JET have held up its authorization, thoroughly demoralized the 60-member team designing it, and raised the possibility that by the time the site and the money are available, there may be no one left to build it.

On 23 February, the science ministers deadlocked after long meetings, and put off the issue until their next meeting in June. A study by the EEC staff had recommended a site at Ispra in northern Italy, which now has EEC facilities (but no fusion research) and is underutilized. The British minister refused the recommendation, arguing for a site in the United Kingdom at Culham, where there is a long tradition of fusion research and where the international JET design team is now working. France and West Germany accepted neither proposal, but argued for sites on their own soil, at Cadarache in southeast France, and at Garching just outside Munich. Sites at Jülich, Germany, and Mol, Belgium, have also been proposed.

The scientists themselves would probably prefer the picturesque setting of Culham, only 50 minutes from London, to the rather remote facilities at Ispra. But what is

endangering the project is that the EEC nations are unwilling to commit money before the site is decided.

The nine-nation dispute has nearly halted the design of the project, and has already caused some of the scientists to leave for more secure employment.

Although fusion machines are ultimately supposed to produce power, the experimental devices consume power, and the specifications of the regional power grids are different at each of the proposed sites. Depending on the details of its design, the JET machine will require up to 400 megawatts, but only a few of the sites have the nearly unlimited power necessary for certain economies of design.

In part, the extended D-shaped cross section of the vessel, which makes it versatile, mandates the power requirement. More than anything else, uncertainty about the sort of power that will be available is holding up design work.

Uncertainty about the terms of employment of the professional staff, most of whom came from the strong national fusion programs in Britain, France, and Germany, is also becoming an acute problem. The original design team came to Culham on a 2-year contract that ended last December. Without project approval, no long-term contract could be offered to follow it, and about 15 percent of the scientists left rather than accept the 6-month extension under which

the rest of the team is now working. If no decision on the future of JET has been made when that contract expires at the end of June, "the design team will dissolve and go back to their homes," according to J. P. Poffé, the head of the planning section.

The next meeting of the EEC ministers will leave very little leeway for negotiations. But if that meeting, planned for 18 June, fails, the question of JET will probably be thrown up to the heads of state, when they meet in July. The grand scale of the JET project makes it appear to be the sort of research for which regional cooperation is an ideal solution. But the results so far suggest that narrow-minded nationalism has hardly been overcome.—W.D.M.

