• The power to make a final determination as to whether it is meeting state standards relating to air and water quality. The agency should be required to meet both federal and state standards, but should not be required to obtain state or local licenses or approvals.

Even suggesting the granting of such authority would send the environmentalists on the warpath, and the authors of the report recognize the hazards of giving responsibility for power development and regulation to a single agency. The point is that the task of reconciling the power needs of the region with the desires and prerogatives of states and local units is a problem to which little attention is now being given.

Vermont's Predicament

Vermont's predicament illustrates how a battle over a single plant, for example, can affect and be affected by the regional situation. The Vermont Yankee nuclear plant at Vernon has encountered, as one sympathetic observer put it, "every conceivable adversity." It was constructed during a period of high interest rates and of maximum environmental sensitivity. Expensive redesign work increased the cost, and a boost in water quality standards, plus pressure from environmentalists, caused the addition of cooling towers to the plan. Although Vermont's private power companies have had relatively amicable relations with publicly owned companies in the state, a bid from out-of-state public power companies for access to power from the new plant was settled only after threats of antitrust action had been bandied about. The change in the Atomic Energy Commission's stance on licensing as a result of the Calvert Cliffs decision (*Science*, 17 September) appears likely to mean a further delay. Even if that issue is settled with dispatch, environmentalists may appeal a predicted decision by state water resources authorities to allow Vermont Yankee to raise water temperatures by 1°C at the point of discharge.

The delay of the Vermont Yankee plant has put a financial strain on Vermont's two biggest private companies, Central Vermont and Green Mountain, which are responsible for paying interest on 55 percent of the bonds on the nuclear plant and have had no return on their investment. Vermont Republican Senator George D. Aiken says that another year's delay for Vermont Yankee could mean that the Vermont companies would have to sell their interest in the plant and that the state might have to take over to prevent control from being taken over by out-of-state interests.

Vermont Yankee's problems are due in large measure to its being a nuclear plant. In Washington, the Joint Committee on Atomic Energy is aware that many nuclear plants are in a holding pattern these days, and has been conducting hearings on licensing procedures and related matters. In particular, the committee has been considering two Administration-backed bills that would contribute to simplifying the long and complex process by which nuclear plants are located, built, and licensed for operation. One bill, H.R. 9285, is designed to allow the Advisory Committee on Reactor Safeguards to cut short the approval process when dealing with reactors of similar design which are, for example, to be built on the same location. The other, H.R. 9286, would ease somewhat restrictions on the kind of work that could be done on a site before a construction permit was granted. The precise wording of the bills is still under debate, but the committee is expected to come up with a report and recommendations in the reasonably near future. "One-stop licensing" for nuclear plants, however, is still only a gleam in its proponents' eyes.

More than tinkering with federal regulations will be required to reconcile economic and environmental objectives. A kind of planning will be required for which there is yet no real precedent. The NEPOOL agreement, no matter how useful and overdue, is planning in the old style. As one lawyer put it, "the whole attention is on the bucks."

Effective planning must be done from more than one point of view. This is true for the environmentalists as well as the developers. In a state like Vermont, where the demand for new jobs is a weighty political fact of life, environmental absolutists could soon find themselves trumped by economic necessity. Vermont, on the other hand, has new land-use and development laws (*Science*, 3 September, page 895) which, while imperfect, could provide environmentalists with a negotiable grand design.

As for the power companies, they have tended to plan according to projections of demand for power, and these projections become self-fulfilling prophecies. For the power companies, growth has been the name of the game, and it is clearly time to reexamine the rules.

Environmentalists, for their part, are asking new questions. The April newsletter of the New York–Vermont Lake Champlain Committee, for example, carried this note:

> Many members of the Committee are coming to believe that we must seriously consider limiting our energy demands and that there must be far more rigorous self-discipline in conserving our non-renewable resources. While we strive to minimize the harmful effects of power generation and transmission for which a demonstrable need exists, we will continue to stimulate beneficial solutions to the technological problems and to question the reasons for the rate of increase in total energy demands.

Today, this amounts to a voice crying in the wilderness. There are yet few serious advocates of zero power growth. But in places like Vermont, there is a growing recognition that there is a conflict between unrestrained growth and preservation of the environment and that you can't have it both ways.

—JOHN WALSH

APPOINTMENTS

Robert H. Frost, acting head, physics department, California State Polytechnic College, elevated to head of the department. . . . **Patrick Donohoe**, California Provincial of the Society of Jesus, to chancellor, University of Santa Clara. . . . **Robert J. Kibbee**, vice president for administration and planning, Carnegie-Mellon University, to chancellor, City University of New York. . . . **Arthur V. Houghton**, director, Bureau of Engineering Research, University of New Mexico, to director, Eric H. Wang Civil Engineering Research Facility at the university. . . . **Richard A. Kenyon**, chairman, mechanical engineering department, Rochester Institute of Technology, to dean, College of Engineering at the institute. . . . **Robert M. Terry**, associate professor of sociology, University of Iowa, to chairman, sociology department, University of Akron. . . . **Richard A. Swalin**, professor of metallurgy and materials science, University of Minnesota, to dean, Institute of Technology at the university. . . . **T. Skipwith Lewis**, associate professor of engineering, University of Hartford, to dean, College of Engineering at the university. . . . **Bruce D. Martin**, professor of pharmaceutical chemistry, Duquesne University, to dean, School of Pharmacy at the university.