

Solar bank supporters sue Reagan

To what extent can the President ignore implementation of laws passed by Congress? That is essentially what's at issue in the lawsuit filed on April 8 in U.S. District Court. Claiming the Reagan administration illegally impounded \$22 million set aside in this year's budget for the Solar Energy and Energy Conservation Bank, a coalition of individuals and groups is suing the President, Office of Management and Budget Director David Stockman and five Cabinet secretaries.

Created on paper by an act of Congress three years ago, the solar bank has never opened its doors for business. It was supposed to assist low- and middle-income homeowners, renters, owners of small businesses and farmers in investing in solar and energy-conserving technologies. Last year's appropriations bill directed the Housing and Urban Development secretary to activate the bank immediately and to "disburse loans and subsidies at the earliest possible date." But the Reagan administration—citing the Budget and Impoundment Control Act of 1974—rescinded all but \$225,000 of the bank's \$121 million fiscal year 1981 appropriation and is seeking to rescind the entire \$22 million appropriation passed for FY '82 last December.

Congress only agreed to approve the '81 rescission if money would be spent in 1982, explains Alan Miller of the Natural Resources Defense Council, an attorney in the case. But when not a penny of the '82 appropriation had been spent by the end of the first half of the '82 fiscal year, and the bank's officers had been dismissed, NRDC and Solar Lobby filed suit on behalf of 23 parties, including many would-be solar bank users.

The administration has claimed it need not fund the bank until its current rescission request is decided. But the litigants claim that is illegal; the bank must be operated unless and until the funds are formally rescinded. Although the General Accounting Office agrees with that contention, the OMB does not.

More important, Reagan's rescission request to Congress was due to expire this week. Without its approval by both houses of Congress, it's not clear what recourse the President has. The Justice Department is studying the matter and Richard Ottinger (D-N.Y.)—one of five congressmen acting as plaintiffs in the suit—will hold hearings April 30 before his subcommittee on energy conservation to explore the administration's options.

Steam tubes further stay TMI-1 restart

Until a legal hitch earlier this year, it appeared the Nuclear Regulatory Commission was ready to authorize the restart of the Three Mile Island-1 reactor (SN: 1/23/82, p. 55). Now it can't operate before year's end, owing to extensive steam-generator-tube corrosion, the same problem that led to the Ginna nuclear accident (SN: 1/30/82, p. 68). According to ENERGY USERS REPORT, replacement of 8,000 to 10,000 tubes, at an estimated \$25 million, will probably be needed. A February NRC staff memo reports that 23 percent of all nuclear-plant outages unrelated to fueling result from steam-generator degradation. And it adds, "There are no simple corrective actions" for this problem, affecting to some degree 40 operating reactors.

Financing—the energy cost to buildings

Annual U.S. energy savings equivalent to 3.5 million barrels of oil daily could be achieved by the year 2000 through energy efficiency improvements in city buildings alone. Most investments would pay back costs in less than 7 years, often saving 30 percent or more in fuel costs. But only a third of that will be likely to be realized, notes a 361-page Office of Technology Assessment report, because long-term financing difficulties make most building owners reject paybacks longer than two years.

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Human interferon protects plants

Human-derived interferon, which has shown activity against some human cancers as well as against human viral diseases, can also help plants fight off virus infections. So report Ilan Sela and Patricia Orchansky of Hebrew University in Rehovot, Israel, and Menachem Rubinstein of the Weizmann Institute of Science in Rehovot, in the April PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES.

Two years ago Sela and colleagues reported that plants make an antiviral material that is similar to interferon in its chemical properties (SN: 2/16/80, p. 105), and Sela, Orchansky and Rubinstein thought it possible that human interferon might also protect plants against viruses.

They inoculated tobacco plants with tobacco viruses, punched discs out of the plants and put the discs in Petri dishes. An hour later two major kinds of human interferon—leukocyte and fibroblast—from natural sources, as well as human leukocyte interferon made by recombinant DNA techniques, were applied to various discs. Still other discs received no interferon treatment and served as controls. For the next 70 to 80 hours, viruses were allowed to multiply in the discs. Then the discs were frozen, homogenized and examined to see whether the interferon-treated ones contained significantly fewer viruses than the control ones did. The investigators found that this was the case. Yet other experiments indicated that the interferon-treated discs were less infectious for plant leaves than the control discs were. Still others showed that the protective effects of interferon against plant viruses were reversible: When interferon was applied to virus-infected plant discs, then removed, virus multiplication was gradually resumed.

These findings suggest that human interferon might hold some practical application for agriculture, says J.M. Kaper, a scientist at the U.S. Department of Agriculture in Beltsville, Md. Kaper himself is researching ways of increasing plants' resistance to viruses and has been following published reports from Sela and colleagues with interest. In fact, scientists at the Roche Institute of Molecular Biology in Nutley, N.J., anticipate that they might work with Sela to explore the possibility of using recombinant DNA-produced interferon in agriculture since Sela will be coming to Roche in several months for a sabbatical.

Before human interferon could be used in agriculture, though, some way would have to be found of getting it into plants, Kaper points out. And in the opinion of Sidney Udenfriend, director of the Roche Institute, the plant antiviral factor that Sela and his colleagues have discovered probably holds even more potential for agriculture than human interferons do. So Roche scientists also look forward to possibly exploring with Sela the agricultural potential of the plant antiviral factor made by recombinant DNA techniques.

... but some effects may be negative

Interferon's value as a cancer treatment was also called into question this week at the annual meeting of the Federation of American Societies for Experimental Biology in New Orleans by Shelby Berger of the National Cancer Institute in Bethesda, Md. When Berger and her colleagues treated cancer cells with three different types of interferon (leukocyte, fibroblast and lymphoblastoid), it increased the cells' ability to pass through membranes that separate body tissues, and treatment with the three kinds of interferon also increased the cells' production of an enzyme that destroys collagen in these membranes. These findings suggest that, rather than countering cancer, interferon may help spread cancer cells into normal tissues. Before these findings can be extrapolated to the human situation, however, they have to be replicated in animals, Berger cautions.

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