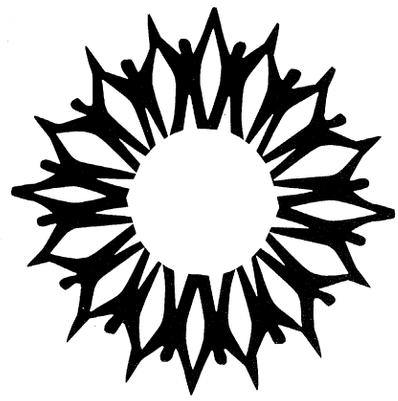
er, Jr., of the National Council of Churches; and Michael McCloskey and David Brower, of the Sierra Club and Friends of the Earth, respectively.

Carlough, president of the Sheet Metal Workers, recently spoke to the fact that Sun Day is many things to many people. "Let the record show," he said, "that our position is one for the utilization of every practicable energy source: coal, oil, water power, wind power, nuclear and solar. Other groups will come to solar for their own reasons, perhaps because it's clean and nonpolluting, perhaps because it may help to break some of the monopoly power of the big energy corporations, or perhaps because they are antinuclear. Why they like solar is their business. Our business is to help in every practical way to push solar energy and develop a big source of jobs at good pay for our members."



Sun Day, Wednesday, May 3

Hayes sees large differences between the Sun Day and Earth Day movements. Earth Day was mainly campus-based, with a student and environmentalist constituency; also, it was concerned mainly with the problems of pollution and other forms of environmental degradation. But Sun Day, as Hayes sees it, represents a broad-based movement that has a strong positive thrust, being focused not so much on problems as on solutions.

At the same time, Hayes believes that the Sun Day movement is riding an even stronger tide of public opinion than the one that was running in favor of Earth Day in the spring of 1970. As he sees it, many people have become uneasy during the past several years at prospects for the nation's, and the world's, energy fu-

Briefing

Uncle Sam Wants You To Be Healthy and Inexpensive

As part of the general desire sweeping through Washington to cut back the costs of health care, new attention is being focused on public awareness of preventive measures such as proper exercise, nutrition, and nonsmoking. Because the average American is regarded as taking most of his cues for poor health habits from advertising, there have been a number of recent suggestions that the federal government get into the business of buying television ads to promote a healthy lifestyle in a big way.

Recently, Senator Edward Kennedy (D–Mass.), who is chairman of the Subcommittee on Health and Scientific Research and a backer of the idea, convened a private meeting of federal regulators to map out a government-wide strategy. The idea for federally-sponsored health ads is still at a preliminary stage, but the attendance at the meeting suggests that the concept has a broad range of powerful support. Present were the heads of the Food and Drug Administration (FDA) and the Federal Trade Commission (FTC), as well as assistant secretaries of the Departments of Agriculture and Health, Education, and Welfare (HEW).

HEW and Agriculture already spend about $70 million a year for education of the public on health and nutrition, primarily on pamphlets and brochures. The agencies for some time have been engaged in a turf battle over responsibility for nutrition education, with the result that "there has been an overall lack of coordination both within and between the two Departments" on the topic, according to the General Accounting Office.

One of the purposes of Kennedy's meeting was to improve cooperation between the departments, but as yet there is little evidence of its success. Officials of the FTC and HEW agreed to petition jointly the Federal Communications Commission in favor of a requirement that radio and television stations run a specified number of public service announcements, some of which would deal with health topics. Public service announcements are used by broadcasters now, but not under any specific government requirement and often in the late evening and early morning hours, when few people are tuned in. Agriculture was invited to join in the petition, but the department has yet to decide if it will.

Officials of the FDA and FTC also agreed to coordinate their public relations responses to health crises such as the recent deaths associated with use of liquid protein diets. (FDA has regulatory authority for product contents, and the FTC has authority for advertising practices.) All of the agencies expressed support for increased spending on research into how behavior patterns for diet and exercise are established, and Kennedy has had preliminary discussions about the issue with the directors of the National Science Foundation and the National Institutes of Health.

Also, the agencies agreed to promote and participate in a workshop, tentatively planned by the FTC for June, on how the government should use or harness the public airwaves for dissemination of health information. According to an FTC staff member, it is at this meeting that the controversial issues associated with health promotion are expected to be raised: Is government advertising the same as Big Brotherism? If a major ad program is begun, who should determine what the ads will say? Should the ads be funded by taxpayers, or required to be shown free as a condition for a broadcast license? The agency heads also realize that a lot of money is tied up in foods not considered by health experts to be of nutritional value, and they expect to take a lot of heat at the meeting from the affected manufacturers.

Wrangling over Patent Licensing Extended 120 Days

Controversy over a new regulation permitting universities to get a larger share of the commercial benefits of federally financed research has increased in recent weeks, prompting the federal Office of Management and Budget (OMB) to delay implementation of the regulation until 20 June.

The regulation, which provides for broader use of standard agreements between federal agencies and universities, known as Institutional Patent Agreements (*Science*, 17 March), was to have been implemented by the General Services Administration on 20 March. Three days before that date, however, Senator Gaylord Nelson (D–Wis.), who is chairman of the Small Business Committee and opposed to the regulation, requested that OMB delay the regulation long

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ture. The debate over nuclear power intensifies. The nation's coal miners go out on a prolonged strike, and scientists ponder the effects on world climate of the discharge of increasing amounts of carbon dioxide into the atmosphere from the burning of coal. New York City breaks down into civil disorder as the result of a power failure and blackout. Industrial workers are laid off because of natural gas shortages. Supertankers go aground and massive oil spills result. Homeowners find themselves paying more and more for heating fuel, in some cases spending more on heating than on their mortgage.

Hayes believes that such developments have made the promise of solar energy—which he thinks can be made economically competitive far sooner than many energy specialists recognize—attractive indeed. Opinion polls do in fact show that the public looks on solar energy with increasing interest and favor. Certainly, members of Congress must be perceiving this to be the case, for some 70 representatives and senators have joined with nearly a score of public interest groups, labor and trade organizations, and other groups in a Solar Coalition that is pushing for a new package of solar legislation.

Earth Day and the enthusiasm it helped generate for environmental goals is believed to have contributed to the passage of legislation such as the Clean Air Act, the Clean Water Act, and the Occupational and Safety Act, and to the "busting" of the Highway Trust Fund and the defeat of the supersonic transport. Hayes expects to see Sun Day followed by equally impressive legislative results. In particular, he hopes to see passage of measures to greatly expand federal research and development and procurement efforts on behalf of solar, and especially photovoltaic cell technology. In addition, he looks for enactment of measures such as those to establish a solar development bank and to protect landowners' "right of solar access."

Hayes says that although the Sun Day organization will disappear after the observance, one or more new groups will be created to lobby for solar energy in Washington and in state capitals.

—LUTHER J. CARTER

Briefing

enough for his committee to hold hearings on "the history, legal basis, and implications" of the patent agreements.

OMB granted the request, noting that although the regulation had been formulated as the result of an orderly process extending over several years, "its timing was clearly inappropriate given the current interest by your committee, other congressional bodies, and the executive office of the President" in patent licensing policy.

No date for the Nelson hearings has yet been set, but a number of groups on both sides of the issue have already indicated an interest in participating, including Ralph Nader's Health Research Group—which agrees with Nelson—and the Association of American Universities—which favors the new rule.

Government Takes Partial Step to Protect Ozone Layer

In the first government action since the National Academy of Sciences expressed concern over the effect of chlorofluorocarbons on the depletion of ozone in the upper atmosphere, two federal regulatory agencies recently announced a ban on virtually all manufacturing of aerosol products that use chlorofluorocarbons as propellants. The ban will go into effect on 15 December.

The Academy raised the concerns in a 1976 report, which stated that emissions of chlorofluorocarbons (primarily those known as F-11 and F-12) into the atmosphere from aerosol and industrial uses were causing a reduction in stratospheric ozone. The ozone depletion, in turn, was enabling an increasing amount of ultraviolet radiation to reach the earth's surface. The report predicted that increased radiation would cause changes in the earth's climate, would lead to a variety of adverse biological effects related to the food chain and crop yields, and would prompt an increase in the frequency of skin cancer in humans.

The new regulations, which were imposed by the Environmental Protection Agency (EPA) and the Food and Drug Administration, cover 97 percent of the propellant's use in aerosol products in the United States, according to agency officials. Exempted are so-called essential uses, or those for which no substitute is readily available, including certain applications in the drug, pesticide, aviation, and electronic industries.

Apparently sweeping in its scope, the ban actually is far from a bold step. Since the first publication of warnings about the harmful effects of chlorofluorocarbons, manufacturers—prodded in part by consumer preferences for less expensive alternatives—have cut back on use of the propellant by more than 50 percent. As a result, aerosol uses have accounted for a diminishing proportion of the total chlorofluorocarbon emissions, now estimated to be only 30 percent of the total in the United States and about 15 percent of the total worldwide.

The other uses of chlorofluorocarbons, primarily in refrigeration, foam blowing, and manufacturing solvents, have actually been increasing in the last few years. The EPA says it has begun looking into a ban or restriction on these uses, and has ordered an analysis by the RAND Corporation of the economic impact that such an action would have on affected industries. The analysis will not be completed until early next year, however, and no government action will be taken until then. According to an EPA official, the industries, particularly those in refrigeration and air-conditioning, have already indicated firm opposition to any curtailment of their chlorofluorocarbon use.

The difficulty with any further delay in the curtailment, however, is that an extensive lead time is necessary before any appreciable difference in the ozone depletion is felt. Chlorofluorocarbon emissions that have already occurred are expected to cause a decrease in the ozone layer of several percent, and an increase in the incidence of skin cancer by an even greater percentage.

One study prepared for federal regulators with admittedly uncertain models did suggest that, by imposing the aerosol ban this year instead of in 1980, approximately 900 cases of nonmelanoma, or superficial, skin cancer and 30 cases of melanoma per year in the United States for the next 70 years will be avoided. Because slightly less than one-third of all melanoma patients die from the disease, the action is claimed to have saved about 10 lives a year.

Substantial uncertainty remains about the extent of the impact that chlorofluorocarbons have on the ozone layer, however. As a result, predicting the effects of a more complete ban in the United States or a worldwide ban is difficult. As of now, Canada and Sweden are the only other countries considering partial bans on chlorofluorocarbon uses.

—R. Jeffrey Smith