

California as Nuclear Bellwether

When Californians vote on Proposition 15 of their ballots June 8, their decision will immediately kindle a brushfire of international consequences, for this initiative represents the first important electoral showdown in the growing debate over nuclear energy (SN: 1/17/76, p. 44 and 1/24/76, pp. 51, 58, and 59). The state that spawned so much of the space age and perfected the traffic jam may become the first to turn away from what many experts call the energy of the future.

The proposition, which would have the effect of law and was placed on the ballot as the result of petition, states that the people of California "find and declare that substantial questions have been raised concerning the effect of nuclear fission power plants on land-use planning, as well as on public health and safety." Such questions include plant performance, reliability of emergency safety systems, security, adequate disposal of wastes and the creation of "potentially catastrophic hazards for future generations."

Thus, before a reactor (including those now in operation) could be licensed in the state, three conditions must be met:

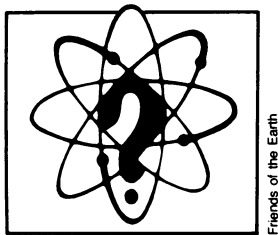
- The current liability limits of \$560 million for any one reactor accident, imposed by the federal government, must be removed within one year and "full compensation assured."

- The effectiveness of all safety systems, including the emergency core cooling system, must be demonstrated in actual tests—not by computer modeling, as now—to the satisfaction of two-thirds of the state legislature. (The system was the subject of another defection this week of a scientist working on nuclear energy. Keith Miller, a computer expert consultant to the Nuclear Regulatory Commission, calls present computer simulation "one of the weakest links in nuclear reactor safety.")

- A long-term storage system for safely disposing nuclear wastes must be provided to the satisfaction of two-thirds of the state legislature.

The first probable consequence of passage would be a prolonged legal battle, in which nuclear proponents would try to have the law declared unconstitutional on grounds that regulation of atomic energy is a federal responsibility. If the law should then be upheld, a total shutdown of nuclear facilities would probably result, for the concept of limited liability has just been renewed by Congress, and a two-thirds vote of the often rancorous state legislature is difficult to obtain on the most innocuous of issues.

As the date for the decision nears, both sides of the debate have begun to bring



out their big guns. Passage would saddle the state with an "economic albatross," declares the Southern California Edison Co. The cost, the company says, would average \$225 for every household in the state that uses electricity, and utilities would be forced to burn between 80 million and 120 million more barrels per year of imported oil.

In testimony before a committee of the state legislature, Frank Zarb, head of the Federal Energy Administration, released findings of a study of possible impact of the initiative, conducted for FEA by the University of Texas. The report concluded that Californians either must accept a decline in economic and population growth rate or find new sources of oil and coal, if nuclear energy is phased out. In either case, electric costs would rise substantially, and uncertainties over the environment and economics would worsen. Translated into the "real world," Zarb says, this "could leave California isolated, conceivably faced with severe energy shortages and with equally serious economic impacts."

Countering these arguments are a variety of environmental and other antinuclear groups, and also a growing number of disenchanted scientists and planners. One major critical study was issued last week from the Worldwatch Institute in Washington in the form of a monograph by Denis Hayes, *Nuclear Power: The Fifth Horseman*. Hayes builds on his thesis that government and industry are purposely neglecting the greatest potential source of immediately available energy—conservation. In an earlier study, conducted for FEA, Hayes estimated that more than half the energy now consumed in the United States is wasted and that effective conservation measures could enable the country to meet all its new energy needs for the next 25 years (SN: 3/27/76, p. 202).

Applying this argument to the nuclear debate, Hayes concludes that "worldwide dependence upon nuclear power could lead to a new form of technological colonialism," with developing countries dependent on the advanced technology of industrialized countries rather than on smaller, labor-intensive, locally developed sources of energy, such as solar

collectors. However, by conserving its own energy, the United States could set an example for less developed countries and help them establish power generation schemes that would not have nuclear weapons proliferation as a probable side effect.

Hayes and other nuclear opponents see the California initiative as only the first step in a growing effort to slow the spread of nuclear technology and radioactive materials. Already two other states have nuclear propositions scheduled for consideration in the November elections and six more states may follow. Once opposition slows nuclear development in the United States, the argument goes, labor unions in other countries will increase their antinuclear protests (since nuclear energy is considered to be capital- as opposed to labor-intensive). Then, says Hayes, "The world may follow."

That concern is reportedly receiving increased attention in international negotiations. One of the key topics in discussions this week between President Ford and French president Valéry Giscard d'Estaing was expected to be nuclear proliferation and France's ambition to become a major nuclear supplier to the Third World. Already the French and other European countries are some years ahead of the United States in breeder reactor development, and France has agreed to sell a fuel reprocessing plant to Pakistan (where the prime minister has said his people "are ready to offer any sacrifice, and even eat grass, to ensure nuclear parity with India"). Just what effect an increasingly successful antinuclear movement in the United States would have on such negotiations can hardly be estimated.

At least the nuclear debate has begun to move away from endless argument over whether the danger of being killed by a reactor accident is about the same as being hit by a meteorite or whether it is closer to that of being struck by lightning (thousands of times higher). Such arguments often resemble medieval scholastic exercises over how many angels could dance on the head of a pin, while in the nuclear debate "the real points of controversy fall in the realm of values and ethics" (Hayes). But as Californians prepare to vote their conscience on June 8, other Americans are showing their preferences in ways perhaps more powerful than the ballot: The United States now consumes half the world's gasoline; and rather than conserving energy or learning from the oil embargo, Americans must now use 40 percent imported oil, compared to only 36.2 percent just before the 1973 embargo. □