

Barons of Electric Power Hold Pep Talk

San Francisco. The man handing out leaflets in front of the downtown Hilton wore coat and tie. A cardboard sign had been set nearby, its message cut in large letters with a magic marker. "More nukes, less kooks," it read. "Protect science from the new dark age."

Picking up the handouts were groups of convention goers who had gathered at the Hilton to discuss "Science, Technology and the Human Prospect" during the 4-day Edison Centennial Symposium. The "more nukes" man was not on the program, yet his message and variations on that theme were alluded to over and over during the meeting. One reason, perhaps, was that the event had been sponsored by the Electric Power Research Institute (EPRI) and the Thomas Alva Edison Foundation. EPRI conducts R & D for 550 electric utilities in the United States, with about 30 percent of its \$202 million 1979 budget going to the development of nuclear power. The symposium attempted to cover a broad spectrum of science policy issues. Boiled down, however, it seemed part pep talk and part critical inquiry—as though the electric power industry was looking for a philosophy to guide its future. The timing for such an event was strangely inauspicious. Convened on 1 April, the symposium was held while the Three Mile Island power plant near Harrisburg, Pennsylvania, suffered the worst nuclear accident in industry history.

The symposium was part of the yearlong "Centennial of Light," which is honoring Edison's development of an electric light bulb (*Science*, 6 April 1979) and seeking "to stimulate an Edison-like enthusiasm for discovering ways to improve the quality of human life." The upbeat opening address by Chauncey Starr, vice chairman of EPRI, was in line with that theme. His talk, "The growth of limits," set out to turn "the limits to growth" ethic on its head. "I do not accept the premise," he said, "that constraints on growth are in view or that our long-range planning horizons should be determined by today's perceptions of existing limits. I believe that a long future of expanding expectations continues to be an available option if we take advantage of the fact that technology is an unlimited resource of the human mind."

Even energy resources can expand, said Starr, because technology gives increasing efficiency in the conversion of old resources and also finds new ones. Nuclear power has a strong future, Starr added at a press conference, even in light of the breakdown at Three Mile Island. "This is not that big a surprise," he said. "With 400 years of reactor time logged, the possibility of this type of accident was about 50-50." Asked about the possibility of a reactor meltdown that would result in thousands of deaths, he answered: "It is practically zero. A good analogy that the press had hooted at is a large meteor wiping out a major city." And the safety level of all plants would go up because of the experience gained from Three Mile Island, he said. Asked if the industry had created a Frankenstein, Starr replied, "I don't want to sound like I'm repeating a bunch of clichés, but not only has nobody been hurt, but at this point [2 April] there is no public danger that any of us on the technical side of the industry can see. Calling this a Frankenstein is a gross exaggeration, if you mean a technology that is out of our control."

Nuclear power wasn't the only subject, however. In addition there were 18 papers presented on such topics as "Technological innovation: A social-political-economic problem" and "Public reactions to science and technology." Doom and gloom flowed from many speakers, who complained that "the entrepreneurial spark is dying," that "foreigners are filing an increasingly larger fraction of U.S. patents each year," or that "government regulations are killing innovation." Blame went to kooks, anti-technologists, or the intellectual community. Even the current Administration was not immune. One sign set up by members of the Fusion Energy Foundation read: "Schlesinger ran the Harrisburg hoax to push the new oil hoax."

For panelist Llewellyn King, publisher of *The Energy Daily*, it was the critics' ignorance that offended, not the critiques. "If the attacks were more enlightened or sophisticated, we could gain some intellectual nourishment from them. But as it is, they have been simplified to the point where they are untrue. . . . Nobody who is engaged in the vast industry of beating up the oil companies or the electric utilities understands that private corporations are fragile institutions," or that they may be in their death throes. "We have not built a major oil refinery in ten years. We cannot, it seems, build liquified natural gas terminals. We cannot build a major coal-fired generating station. We cannot lease coal on federal land. We cannot, except very belatedly, drill the Atlantic shelf. We cannot build a nuclear power plant. We cannot come to a decision about what to do with nuclear waste. . . . And so we sit, stagnant, until we gradually reduce our standard of living."

A few dissenters were also on the program, to the credit of symposium organizers. George Basalla, an historian from the University of Delaware, hit the link between high energy consumption and high civilization, claiming that "even a 50 percent reduction in our total consumption of energy would not transport us back to Paleolithic times, nor even to the Dark Ages, but to the 1950's."

For many, the symposium seemed an exercise in longing for the distant past. Said Eric Hoffer, the longshoreman turned philosopher who spoke at the symposium banquet: "The 19th century was stable, predictable, rational, hopeful, free, fairly peaceful, and lumpy with certitudes. Everything seemed to make sense: industrialization, railroads, steamships, exploration, emigration, empire building. America in particular was up to its neck in the purposeful action of taming a virgin continent." Hoffer too laid much of the blame for loss of faith in technology at the feet of intellectuals, "those educated nobodies who want to be somebodies and end up being mischief-making busybodies."

Hoffer's speech received a standing ovation. Yet the reaction to the whole symposium seemed far from sure. Three workshops were closed on the second day for lack of participants. Near the end of the symposium, only 450 people attended the free banquet, though EPRI, in its pre-symposium publicity, had counted on a total of some 1000 participants. Asked why he had come to the symposium, one participant looked around, shrugged his shoulders and said with a smile: "It's in San Francisco."

—WILLIAM J. BROAD