Similarly, "The Drug Enforcement Administration harasses and imprisons businessmen and their customers who engage in the voluntary exchange of goods and services, forcing otherwise honest traders into a life of crime—surely something an administration devoted to free enterprise should abhor. Of course, many of the people involved in the drug trade are not honest traders but members of organized crime. Drug laws help organized crime by keeping drug prices high and keeping most competitors out of the business."

### Against the nation-state

The various Cato Institute policy statements converge on one objective: dismantling of sovereign nation-state institutions and encouraging of heteronomic, local-control institutions. In reality, the content of their policies differs little if at all from the "New Left" projects for "community control" sponsored by McGeorge Bundy's Ford Foundation in the 1960s, or from those of the Green Party Nazi-communist fanatics in the Federal Republic of Germany. In this light, *EIR* has discovered, and is further investigating, the fact that leading U.S. libertarians are also activists in the world-federalist movement: imperial-dictatorial government on a global basis, mediated through tiny local sovereignties.

The free-enterprise line of attack has won the Cato Institute an entrée into the White House. Peter J. Ferrara, now on the staff of the White House Office of Policy Development, is an "adjunct scholar" of the Cato Institute, for whom he wrote a 1982 monograph, "Social Security: Averting the Costs." This presented "free-enterprise" arguments against the social security system and provided the basis for a "non-partisan commission" on social security, which is now being pointed to as the model for the kinds of nonpartisan commissions that Henry Kissinger and his KGB-Eastern Liberal Establishment friends are demanding be implemented in the areas of foreign policy, defense, and agriculture policy.

Trained at Harvard Law School, Ferrara had earlier been special assistant to the Assistant Secretary for Policy Development at the Department of Housing and Urban Development, from which position he had been one of the main architects of the "free-enterprise zone" project implemented in New York City and elsewhere in the country. Under this rubric, Ferrara and congressional "neo-conservatives" such as Jack Kemp (R-N.Y.) had put into effect a system of laborintensive, sweat-shop economics modeled on the dope-based economy of Hong Kong.

The same kinds of arguments based on antipathy for science and technological progress and dirigist Hamiltonian economics have led Cato operatives into collaboration with various "environmentalist" organizations in campaigns against projects such as the Clinch River fast-breeder reactor in Tennessee. Libertarian-environmentalist collaboration was mediated through one Henry Sikolski, at the time an aide to conservative Republican Sen. Gordon Humphreys of New Hampshire and widely suspected of being a KGB mole within conservative circles.

# Cutbacks in fusion

by Vin Berg

It has long been known, though frequently lied about for strategic-policy reasons, that there are no scientific or technological barriers to the realization of fusion energy during the 1990s. This is the judgment of international authorities on the status of fusion research. In fact, in the United States, the country best situated to realize this goal, the only barrier is the deliberate withholding of funds adequate to the task.

Efforts to destroy the program by the administration of James Earl Carter and his energy czar, James Schlesinger, were only offset by the political pressure built up in fusion's favor by the energy crisis, favorable expert-panel reports, and the actual scientific breakthroughs made by fusion researchers, sensational news of which could not be suppressed. Hence, although inadequate from the historic standpoint of fusion power's unlimited promise, funding for the program did gradually creep upward, even under Carter, as it had under preceding administrations.

But now, under an ostensibly pro-nuclear Reagan administration, for the first time in its 30-year history, the fusion program in the United States is facing savage cut-backs. The administration requested \$483 million for fiscal year 1985, a meager increase over FY84's \$470 million, and no increase at all after inflation. But Congress has cut even that request to \$437 million, which assures slow-downs and stretch-outs in the program. In 1986, the Tokamak Fusion Test Reactor at Princeton was to have begun using the fuel (tritium) required to produce more energy through fusion reactions than consumed in generating those fusion reactions, called "breakeven." But Congress's FY85 funding will make this impossible before 1988. And so on across the board.

The same KGB-influenced "liberals" and fiscal-austerity "neo-conservatives," both inside and outside the administration, who have wrecked America's industry, agriculture, and basic infrastructure, are now very close to sabotaging the nation's development of relativistic-beam technology, which is based on physical principles and areas of research and engineering very much the same as fusion energy. The military application, of course, could provide effective anti-missile defense against nuclear attack (the so-called Star Wars). That program also faces slowdowns if the benefits of an aggressive fusion effort are denied it.

### What is fusion?

Fusion is the energy process of the stars, and a fusion reactor amounts to a miniature Sun on Earth. Conventional fission power is based on "splitting" the nuclei of atoms.

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Fusion power, however, requires tremendous heat to strip nuclei of their electrons (ionization), producing a hot ionized gas called a plasma which must then be compressed, by either magnetic or inertial (e.g., "implosion") methods for sufficient time—fractions of a second—to force the nuclei to fuse.

Inertial confinement fusion, using laser beams to implode a small pellet of plasma, is largely classified because of its direct relationship to design of thermonuclear explosives and beam-weapon development. Much of the unclassified work on developing fusion for commercial energy production is of the magnetic confinement variety, like Princeton's TFTR.

What would fusion power mean? It's fuel consists of the isotopes of hydrogen from H<sub>2</sub>O—water. Using the equivalent of 10¢ worth of ordinary tap water, a fusion reactor can produce the energy-equivalent of \$300 of gasoline. It is safe, clean, and its fuel supply is virtually unlimited. Fusion power means unlimited energy supplies for millions of years!

Not only energy. Apart from such already-developed technologies as plasma steelmaking, representing a large leap in productivity, such prospective technologies as the so-called fusion torch will take urban wastes, chunks of low-grade ore, even whole sections of the Earth's surface, and break them down into their constituent elements for recombination into desired materials—a virtually limitless resource-base in every category. And according to already existing designs, interstellar spacecraft the size of cities, constructed in near-Earth orbit, would enable man to reach even nearby stars in fusion-propelled flights of only 50 years.

## The fight for fusion

When Richard Nixon became President in 1968, the magnetic fusion energy budget was supporting a handful of small research projects at a few universities and national laboratories. The 1973 Middle East war and oil shock helped to double the fusion budget between 1971 and 1974 to \$63 million. It doubled again to \$118 million one year later, and rose by \$100 million in each of the following two years. Out of these budget increases came a generation of fusion experiments which demonstrated that the difficulties leading some to argue fusion was impossible could be conquered.

In 1974, *EIR* founder Lyndon LaRouche established the Fusion Energy Foundation to promote the earliest possible development of the new energy source, aggressively reporting on the frontier developments of science to an international audience, and polemically intervening in scientific debates. But in 1976, Jimmy Carter appointed as secretary of energy

James Schlesinger, a committed Malthusian who wished not only to kill advanced forms of fission technology like the fast breeder reactor, but also to put fusion development off for decades on the preposterous argument that it is cheaper to "conserve" energy than to create it.

The balance, however, was tipped in favor of fusion by a dramatic development at Princeton, coming to the attention of the world on Aug. 14, 1978. In July of that year, the Princeton Large Torus machine had achieved a fusion plasma temperature of over 60 million degrees—greater than the Sun! "The question of whether fusion is feasible from a scientific point of view has now been answered," declared the DOE fusion office's Dr. Stephen Dean. Representative Charles Rangell (D-N.Y.) demanded that the nation "redirect . . . further funds and attention to highly promising nuclear fusion research."

Schlesinger's denunciation of the Princeton results as "an exaggeration" had little effect. The FEF had resolutions in praise of fusion introduced in state legislatures and city councils all over the country, and tens of thousands of citizens wrote postcards to Washington requesting a crash program. Representative Mike McCormack (D-Wash.) introduced a bill for an accelerated effort, the Magnetic Fusion Engineering Act of 1980, which Carter had to sign into law in October 1980.

With the "pro-nuclear" Ronald Reagan's election, the future for fusion should have been bright.

#### Sabotage

From the day that White House science adviser George Keyworth arrived in Washington, he argued that if engineering development of reactor-devices went ahead at the thencurrent pace, the "science" of the fusion program would suffer! FEF immediately recognized and denounced the argument: It would only be a matter of time before a Congress befuddled by attacks on "big spending" and "big deficits" would refuse to spend more than \$400 million a year on a "pure science" program. The fusion funding guidelines of the McCormack act—25% funding increases for each of two years, toward \$20 billion by the end of the century—faded into history. The budget was held level.

This sabotaged the job of building a successor to the TFTR at Princeton. The TFTR's "breakeven" task itself is now in jeopardy. The fusion-science community tried to accommodate itself to the new reality, with only the FEF fighting for the principles of the 1980 Fusion Act.

Finally, this year, Congress has outright slashed fusion funding. It is probable that experimental approaches outside the two main-line systems ("tokamak" and "mirror" devices) will be eliminated altogether. Not only is this the equivalent of our ancestors deciding to postone the invention of the wheel, but the directed energy-beam defense program against nuclear attack must now suffer from the retrenched fusion effort. The United States is delaying a decision on whether to survive.

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