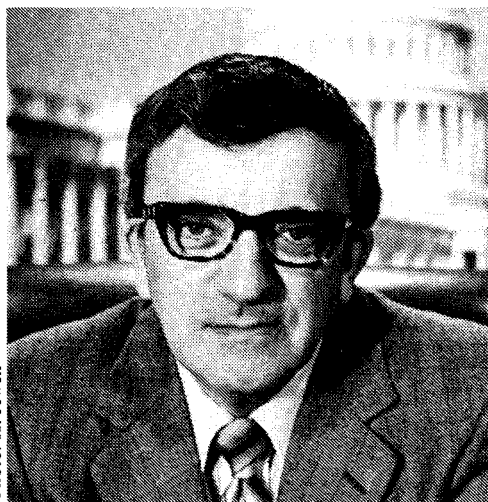


Photo: K. Jewell



Mike McCormack: Battling Carter for fusion power

by Marsha Freeman

A major national policy fight over the future of nuclear energy and the U.S. economy could break out when Congress reconvenes this coming week. The Carter administration has thrown down the gauntlet by proposing severe cuts in the nuclear research-and-development budget of the Department of Energy for fiscal year 1981. But congressional forces behind Mike McCormack (D-Wa) have made widely known the fact that fusion power, in particular, can be commercially produced by the 1990s at the latest, were it not for Carter's withholding of funds. McCormack demands a commitment to nuclear power generally, and will introduce legislation for an "Apollo-style" fusion program.

A preview of the battle that could shape up on Capitol Hill came at a recent conference on nuclear safety in Washington, D.C. Speaking for the administration's position on nuclear energy, DOE Undersecretary John Deutch stated Jan. 16 that nuclear power should be an energy source "of last resort ... There is no question that nuclear energy confronts us with a different set of issues than other energy sources," he continued, "and that we'd like to minimize the use of nuclear energy through conservation and the use of coal."

But McCormack was also there. The Congressman declared "We need to get as many nuclear plants as possible on line as fast as possible throughout the world ... We need to dramatically expand our entire nuclear implementation policy."

Deutch was asked by one of the 350 engineers attending the conference—sponsored by the Institute for Electrical and Electronics Engineers and the Nuclear Safety Regulatory Commission—why the administration was satisfied to apply "self-denial" to the U.S. nuclear program.

Deutch responded that the "reality of the situation is that the government can't effect the policies of the utilities. They decide what kind of plants they will build." He was asked why the administration did not *promote* energy

and scientific development, as during the Atoms for Peace program and NASA? "Would you want Admiral Rickover or NASA to run our power plants?" Deutch responded.

Earlier in the day another top official of the Department of Energy, Ruth Davis, the Assistant Secretary for Resource Application, stated that nuclear power (which has been commercial for over twenty years), is "not a mature technology. It could charitably be called an emerging technology ..." The participants were a little stunned.

Davis's speech was startling in other ways: "We don't do well in defining the risks. I used to think air traffic control was an exception, that the control technology was in place and worked safely, but I don't any more. I used to think so in medical electronic technology but not any more. The only place it does work ... is in military weapons systems ..."

A voice of sanity

Early the next morning at a breakfast session of the nuclear safety conference, Rep. McCormack warned that a "timid approach to energy development" would lead to declining U.S. standards of living or dependence on foreign oil. The Congressman, who spent twenty years as a chemical engineer at the Hanford nuclear research center in Richland, Washington, reminded the audience that in votes on nuclear energy in Congress, the margin has been two-to-one in support.

"A now-weakened United States has led to an international power vacuum ... We have to get as many nuclear plants on line as fast as possible throughout the world," he continued.

"We must take the offensive on nuclear energy," the Congressman stated. "We must recognize publicly that the U.S. and the world must rely on nuclear power for at least fifty years. Nuclear power as a 'last resort' was

never realistic and now is irresponsible. We must announce as U.S. energy policy that we shall expand nuclear production as rapidly as possible. We must ensure our allies that we will follow through and do so..."

"We must have 500 Giga Watts of nuclear energy by the year 2000, which is not over-ambitious. This must include 25-30 breeder reactor plants and 25-30 high temperature gas cooled reactors. They must be standardized designs..."

McCormack ended his presentation with the first public announcement that next week he will "introduce legislation to make it the policy of the U.S. government to bring the first electric generating fusion power plant, on line before the year 2000. We must move into the engineering phase with fusion. We must not wait for somebody else to do it."

Asked, as John Deutch had been, what the role of the federal government should be in promoting nuclear power, McCormack angrily responded that the push by the "violent anti-nuclear cults" to force the Nuclear Regulatory Commission to be, at best, neutral or at worst, anti-nuclear, was a "classic case of George Orwell's doublespeak." We "don't expect the Federal Aviation Administration to oppose the building of airplanes, or the Food and Drug Administration to be anti-food, or opposed to eating. We have to stop shredding our booklets on nuclear energy at Oak Ridge National Lab and get the information out to our colleges and universities."

An engineer in the audience said that the nuclear safety conference would be developing recommendations for technology improvement and development. Could they expect support from McCormack's Science and Technology Committee, particularly for funding for research and development?

McCormack responded that though the administration had cut "way back" on the breeder and the entire nuclear budget, the Congress will be trying to restore all the funding. New technology, like the high temperature reactors, have a "special role," McCormack explained. They will "introduce new technologies such as making hydrogen for future synthetic fuel—the most efficient synthetic fuel there is."

The fight for fusion

The following day, Jan. 18, Congressman McCormack sponsored a background briefing for the press on the U.S. fusion program. Assisting him were some of the most prominent fusion scientists in the nation, including Dr. Steven Dean, President of Fusion Power Associates, Dr. Robert Hirsch, Exxon Research and Engineering, Dr. Mel Gottlieb, Princeton Plasma Physics Laboratory, Dr. Lee Berry, Oak Ridge Laboratory, and Dr. Ron Davidson from the MIT fusion program.

Dr. Dean stated and documented how an Apollo-

style management program for fusion could take 15 years off the current DOE timetable. Dr. Hirsch reviewed the work of a panel he headed, which stressed that funding is the only limit to progress in the program. "We have the scientific confidence to go ahead. It boils down to the country now taking the option."

McCormack himself motivated the press briefing by stating that the decision to go ahead with a fusion program which will bring the technology on line as soon as possible "is the single most important energy event in the history of mankind. Once we develop fusion we will be in a position to produce enough energy for all time, for all mankind—this is not hyperbole, but fact."

The program "must be a \$20 billion commitment in a series of parallel programs," McCormack said.

Asked by a reporter whether this accelerated fusion program might not be seen as a "subsidy to an ailing nuclear industry" or in budget competition with nuclear, McCormack said that they have to be seen as parallel technologies. "Even if we could build one fusion reactor per week in the year 2000, it would take 50 years to replace our year 2000 energy system. Light Water Reactors and breeders will fill the gap. They are parallel technologies, like gas and oil were, or like coal and nuclear are now."

While the scientific community has agreed that fusion is ready for a full-scale engineering development program, the administration has decided to try to stall such a critical decision by proposing the sixth review of the fusion program in the past two years. Dr. Ed Frieman, the Director of the Office of Energy Research will be conducting a panel review of the program.

The panel, headed by Dr. Sol Buchsbaum from Bell Labs, will meet for the first time in mid-February and not have any definitive report for months. Asked by the press what effect this review will have on McCormack's proposal to change the administration's fusion program, the Congressman replied that the panel review was a "response to our activities ... I'm happy they're evaluating it but I'm sorry for the delay. We want to be able to commit to an accelerated program in this budget cycle."

The Congressman plans to continue his effort to convince the administration that an Apollo-style fusion effort is what is needed for the future of the nation. He plans to have a large number of co-sponsors for his bill. He already has over 1,500 postcards sent in from all over the nation.

In this presidential campaign year, McCormack was asked by an engineer, whom would he support in November. The Congressman replied that he would like to support a candidate from his own Democratic party "who has a program for energy and economic development ... I will support the candidate who comes closest to my program," for nuclear energy and fusion power.