U.S. Hops Back on Fusion Bandwagon

PRINCETON, NEW JERSEY--The United States will rejoin the revamped International Thermonuclear Experimental Reactor (ITER) collaboration, half a decade after quitting the project. In 1998, the U.S. withdrew from a previous incarnation of the $5 billion experiment, which will use a donut-shaped magnetic trap to confine superhot hydrogen and induce it to fuse. But during a speech here yesterday, Secretary of Energy Spencer Abraham announced that the United States would seek to become a partner in the experiment once more.

"I am pleased to announce today that President Bush has decided that the United States will join the international negotiations on ITER," said the secretary to an audience of dignitaries and plasma physicists. But Abraham stressed that the U.S. will maintain a strong domestic fusion program as well. The U.S. must "maintain and enhance" its domestic fusion research as well as joining the $5 billion international experiment, he said. Abraham will represent the United States at a meeting of the ITER partners in St. Petersburg, Russia, in mid-February.

The announcement was greeted with enthusiasm by the international partners. "If the president and the Secretary of Energy make it public, we can all be sure that they are committed, and we are happy," says Bernd Kramer, the head of the Science, Technology and Environment division of the German Embassy in Washington. Murray Stewart, the president of ITER Canada, agrees. "I think the commitment's there," he says.

This week the House of Representatives' science committee sent a letter to the Department of Energy to urge the U.S. to join the effort, so a broad-based political will seems to be in effect. But how the drive to join ITER will be reflected in the U.S. budget remains to be seen. All in all, the U.S. will have to spend $100 million per year for nearly a decade to be a serious partner in ITER, according to a Department of Energy advisory committee, money that is not yet available. "There won't be a substantial increase in the '04 [fusion energy] budget," says Abraham, but he expects that there will be a ramp-up to "move pretty quickly" as partners get closer to the start of construction in 2006.

---CHARLES SEIFE

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Taking the tour. The Secretary of Energy (third from left) toured the Princeton Plasma Physics Laboratory and paused in front of a magnetic trap that ITER will make obsolete.