edited by CHRISTOPHER ANDERSON

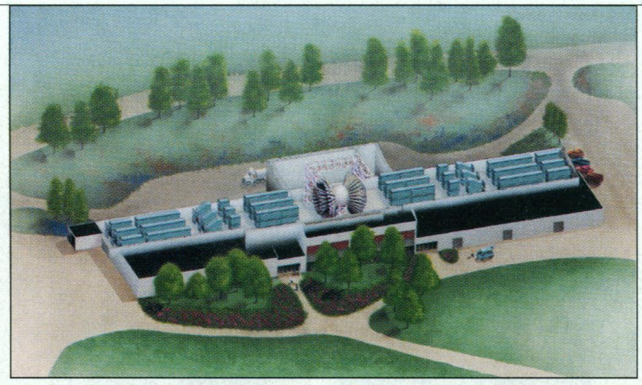
Battle Brewing Over Laser Fusion Project

In Livermore, California, where the ideological fault lines run deep, anti-nuclear activists have scored a hit in their attempt to block a major fusion research project at the Department of Energy's (DOE's) Lawrence Livermore National Laboratory.

Although DOE hasn't chosen a site for the proposed $1-billion National Ignition Facility (NIF)—the world's largest laser—Livermore is considered the strongest candidate. But on 24 May, after activists sent DOE secretary Hazel O'Leary a five-page memo opposing the NIF, she surprised Livermore officials by demanding better justification for the project and delaying a decision to go ahead.

Livermore officials say that the NIF—which would use its lasers to drive tiny fusion reactions—offers both a chance to explore the possibility of generating fusion power and a way to simulate nuclear explosions to keep weapons skills sharp during the current moratorium on nuclear testing. But in the memo to O'Leary, the Tri-Valley Citizens Against a Radioactive Environment claims that Livermore intends to use the NIF to design new weapons, not simply to ensure the reliability of existing ones, and that such research could imperil Non-Proliferation Treaty negotiations.

DOE insiders say that O'Leary is apparently taking the activists' concerns seriously. The decision O'Leary postponed would have authorized Livermore to begin engineering design work and committed DOE to including the project in its next budget request to Congress. Instead, O'Leary asked for an additional report on the NIF's impact on non-proliferation, as well as its benefits to energy production and the maintenance of the existing nuclear stockpile. In several weeks, O'Leary is expected to reconsider the NIF, either approving it and requesting a proposed $56 million for the project for 1996—thereby shifting the debate to Congress—or postponing the decision for further study, as the activists have urged.



LLNL

In limbo. Anti-nuclear activists have stalled the National Ignition Facility.

ITER Management Under Fire

The International Thermonuclear Experimental Reactor (ITER), an $8 billion–plus fusion collaboration between the United States, the European Union (EU), Japan, and Russia, is often called a model for international big science projects of the future. But these days it's starting to look a bit like some troubled big science projects of the recent past: According to a review by government sponsors, ITER needs better management.

U.S. and EU officials and other sources close to the project say that ITER's director, Paul-Henri Rebut, has taken on too much of the technical design work himself, leaving little role for others and letting day-to-day management slip. (Sources say the machine is being designed primarily on Rebut's own computer.) Officials are unanimous in their praise for Rebut's technical skills, but as Charles Maisonnier, head of the EU fusion program, puts it, "very good people have a tendency to want to do everything by themself." Rebut did not return repeated calls for comment.

In May, after a special review of the problem, the council released a statement noting a need for "substantial improvement" in the ITER management. Concluding that the "load on the Director is too high," the council recommended a "redistribution" of his responsibilities. Sources close to the project say that the council plans to transfer much of the management to a new position, perhaps a project manager, leaving Rebut to concentrate on technical work. Council member N. Anne Davies, who heads the fusion program at the U.S. Department of Energy, says that strengthening management "usually means bringing in somebody else," but another option is "redistribution [of management responsibilities] among other senior people in the project." A final decision is expected by the next ITER council meeting on 27 and 28 July, in Moscow.

France to Ban Embryo Research

After nearly 2 years of parliamentary debate, France is about to enact a wide-ranging law on bioethics. As *Science* went to press, the French Parliament was expected to approve legislation on 15 June that contains a near-total ban on embryo research—even on efforts to improve the techniques used during in vitro fertilization—forcing some laboratories to halt work now under way.

The bioethics bill lays down guidelines for everything from organ transplants to gene therapy. Although the Senate, concerned about a possible revival of eugenics, had earlier voted to forbid the examination of embryos for genetic defects before they are transferred to the uterus during in vitro fertilization (*Science*, 28 January, p. 463), the final version would allow this to be done when there is a family history of abnormalities.

But the ban on embryo research stands, and some human reproduction scientists will be forced to halt a significant portion of their research. As a result, says Michelle Plachot, a researcher at the in vitro fertilization and reproductive biology laboratory at the Necker Hospital in Paris, France, which up until now has been in the forefront of reproductive research, will now have to "wait for this research to be done by others."

NSF Clears First Budget Hurdles

Last week, the National Science Foundation (NSF) received just half of its requested 6% budget increase from an appropriations subcommittee of the House of Representatives, but there were few complaints from NSF. In a harsh fiscal climate, agency officials count themselves lucky to get a 3% increase—which translates into $88 million more for a $3-billion agency. But this is only the first milestone of this year's congressional budget process.

NSF's $2.2-billion research program received $53 million more, down from a requested increase of $185 million. Within the research directorates, major proposed increases for global change and high-performance computing were trimmed by $33 million and $29 million, while a small program to increase the ability of states to compete for NSF dollars, known as EPSCoR, got $5 million more than it had sought. At the same time, its $55-million request for its academic facilities program was boosted to $100 million, matching current levels, and its education programs, now at $569 million, were granted a requested increase of $17 million. NSF still expects to have to fight over the next several months to protect its small increase against such politically popular programs as low-cost housing and veterans' medical care.