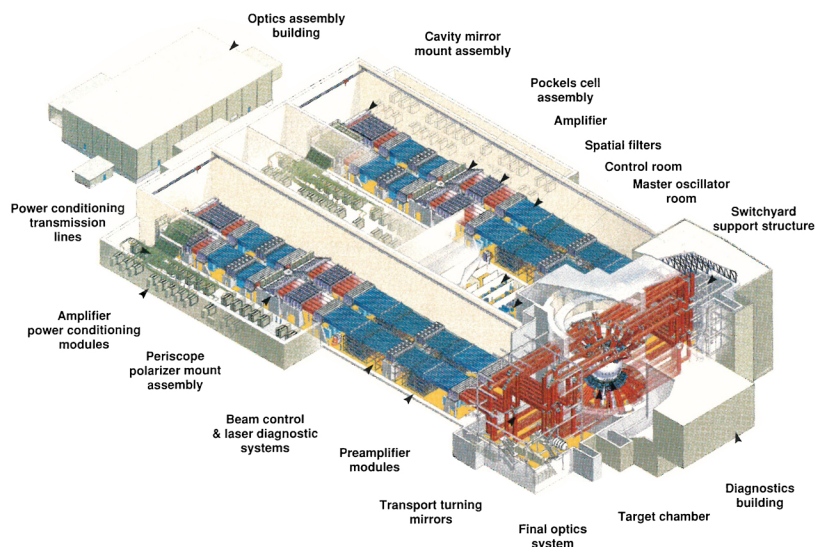




INNER WORKINGS OF NIF: A schematic view of the facility.

first-term California Democrat, had turned a few shovelsful of soil and left the site, a small band of protesters planted sunflower seeds in the holes and watered them, Marylia Kelley, an organizer of Tri-Valley Citizens Against a Radioactive Environment, told *Inside Energy*.

Kelley also reported that the delegation of protesters that met with Peña conveyed the message that the construction of NIF would represent a persistent impediment to worldwide acceptance of the CTBT and that the laser-fusion facility would "lock Livermore into an increasingly narrow nuclear weapons future."

In his remarks, Peña had observed that NIF will not only ensure the reliability and safety of the stockpile, without further explosive testing, but "will advance our fundamental knowledge about basic science and help us learn more about whether fusion can be developed as a new source of energy." The glass laser is designed to fire 192 beams at a peak power of 1.8 million

joules at a tiny fusion target. The deuterium-tritium target would then ignite as a small, controlled, self-sustaining, fusion reaction. This ignition has been the holy grail of fusion researchers for nearly 50 years. Preliminary experiments at NIF are due to start in 2001, but Livermore scientists hold different views on how soon after that they will be able to reach ignition.

Even before it is built, NIF has been a battleground. On 12 May, the US District Court in Washington, the same court deciding on the preliminary injunction, denied a request by DOE regarding an earlier ruling that prevents the agency from making use of a National Research Council report on NIF because it was not done in accordance with the government's sunshine rules put forward in the 1972 Federal Advisory Committee Act. DOE argued that because Livermore is a contractor, it should be allowed to use the report, which supports the operation of NIF in the stockpile stewardship program. The court disagreed.

IRWIN GOODWIN

National Research Council Studies Operate Under New Openness Rules

Despite the ruling by a Federal court that the National Research Council (NRC) must open its deliberations to public scrutiny, the organization continues to operate within the National Academy complex as if little has happened. It has been able to do so by adopting some new practices that more or less adhere to the rules set out in the 1972 Federal Advisory Com-

mittee Act (FACA) (see *PHYSICS TODAY*, June, page 66). Even so, the research council insists the new ways of conducting its studies will endanger its independence and intends to appeal the court's decision to the Supreme Court in the next few weeks.

Under FACA, research council studies are now proceeding in different ways: One uses a principal investiga-

tor who can call upon individual scientists and NRC staff; another allows a panel of experts to hold public sessions in keeping with FACA requirements; and a third method enables a temporary advisory board or committee to review a final draft report and largely follow the rules for public access. The new rules permit the process leading up to the selection of an investigator or committee to remain the same as always, with the NRC still selecting the experts and controlling the operations. At the end of each study, a final draft must go through the wringer of the report review committee in the traditional manner.

"We have had dialogues with the government agencies about several studies," says William Colglazier, the NRC's executive officer, "and almost every study is going forward." A few agencies have been jittery about supporting studies that use any of the three strategies. The Department of Energy (DOE), for instance, recently canceled an NRC study of the controversial International Thermonuclear Experimental Reactor. DOE claimed the research council's committee, which had already been chosen, would lead foes of the fusion energy program to file another lawsuit. In a report accompanying a bill authorizing DOE defense funding, the House directed the Secretary of Energy to ask the research council to maintain watch over the National Ignition Facility, which is to be built at Lawrence Livermore National Laboratory (see previous story on page 46), to make sure the project is "in full compliance with applicable law." Both DOE and the NRC are wary of such a study. It was just such a review that triggered the lawsuit by the Natural Resources Defense Council and 28 other environmental groups that led to the Federal court decision in May.

Notwithstanding the reservations of Federal agencies in supporting new studies, the research council ended its fiscal year on 30 June having earned \$115 million for studies out of a total budget of \$180 million. "We expect that our income from studies over the next 12 months will be even greater," Colglazier says.

Meanwhile, in a 19 June memo to staff, Bruce Alberts, president of the National Academy of Sciences and chairman of the research council, expressed his confidence that the organization will win its legal battle, but that "a considerable degree of uncertainty is likely to continue for another six to nine months." The uncertainty may have an impact on staff: Alberts warned that pay raises would be modest at best.

IRWIN GOODWIN ■