

## Feinstein declines to halt NIF budget cuts

David Perlman

Updated 8:51 pm, Thursday, May 16, 2013

Congressional supporters of the multibillion-dollar National Ignition Facility in Livermore called on Sen. Dianne Feinstein this week to help save the huge laser experiment from \$110 million in budget cuts proposed by the Obama administration.

In a quick response Thursday, the California Democrat turned them down, saying that it's high time to "reassess" the project's experimental efforts to assure the safety of the nation's nuclear arsenal and create sustainable fusion energy that have proved unsuccessful so far.

Freshman Rep. Eric Swalwell, D-Dublin, whose district includes the Lawrence Livermore National Laboratory and its massive fusion research facility known as the NIF, initiated the appeal to Feinstein.

Rep. Zoe Lofgren, D-San Jose, a member of the House Science, Space and Technology Committee, joined Swalwell, as did 25 other House Democrats from California and one Republican, Paul Cook of Yucca Valley (San Bernardino County).

The House members warned Feinstein in a letter that the administration's proposed budget cuts would force the \$3.5 billion project to close, costing the jobs of "nearly 500 highly trained scientists and engineers" who are "a critical part of our nation's strategic and scientific work force," the letter said.

The budget cuts would seriously endanger national security, and prevent scientific progress toward an unlimited energy future, the House members said.

In dozens of experiments, NIF's array of 192 laser beams - all focused with precision on a single tiny pellet of hydrogen isotopes - has tried twice without success to achieve what the scientists term "ignition."

Ignition would produce enough heat and pressure for the hydrogen isotopes to fuse together, instantly producing far more energy than it takes to fuse them. It would be an extraordinary event, known only in the unimaginable blazing heat of the sun and stars, and in the explosions of hydrogen bombs.

"NIF is fusing hydrogen isotopes," a spokeswoman said. "What we are still working on is to achieve ignition - more energy out than in."

The facility's primary purpose is to reproduce inside the laboratory the secret inner explosive workings of the nation's aging stockpile of nuclear weapons in order to assure their safety and reliability without resorting to weapons testing, which is banned by international treaty.

Ignition, many scientists believe, would also lead to a new source of virtually unlimited civilian energy, produced by new kinds of thermonuclear reactors fueled only by the hydrogen in the waters of the world's oceans.

Feinstein is a member of the powerful Senate Appropriations Committee and chairs its subcommittee on energy and water development.

She rejected their request to support NIF's request for \$486.6 million for the coming year, saying it "is hard to justify" as there is no "clear path forward for achieving ignition."

"NIF has failed twice to achieve its stated goal of achieving ignition," Feinstein noted - in 2010 and again in 2012. Her committee had appropriated "close to \$1 billion" to speed those efforts, she said, but the money was never meant to cover beyond those two years.

"It is impossible at the moment to predict whether ignition can be achieved," Feinstein said, and "now is the perfect opportunity to reassess the goals of this program."

She said she has asked the project's leaders at Livermore and at the National Nuclear Security Administration, who oversee the NIF, to develop "clear and measurable goals to track progress in achieving ignition and meet the needs of the stockpile stewardship program."

"I asked for new milestones and program goals more than six months ago and still have not received them," Feinstein said.

**This article has been corrected since it appeared in print editions.**

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