

The language below is from the House Appropriations Committee report and from the draft Senate Energy and Water Appropriations Subcommittee report. For the Office of Science, the Senate allocates \$4,898,832,000 - - \$42,850,000 less than the Administration request. The House allocates \$4,943,587,000 - - \$1,905,000 over the Administration's request. It is not expected to change significantly. It is hoped that final passage will occur prior to the August recess. July 9, 2009

## **Fusion Energy Sciences:**

### **Senate:**

“The Committee recommends \$416,000,000 for Fusion Energy Sciences.”

### **House:**

“ The Committee recommendation for fusion energy sciences is \$441,000,000, \$20,000,000 more than the request.

“From within these funds, the Committee recommends \$20,000,000 fro the laser fusion program at the Naval Research Laboratory (NRL), which has been funded in previous years from the accounts under the National Nuclear Security Administration. NRL has identified a path to inertial fusion energy that could substantially reduce the cost and the time to develop a practical fusion power source, based on krypton-fluoride (KrF) lasers and high-performance directly driven targets. NRL researchers and their collaborators have developed a staged plan to systematically develop the needed science and technologies for the energy application. The Committee directs the Department of Energy to Evaluate the potential of the KrF laser for commercial fusion and the merits of the staged development plan. The Office of Nuclear Energy shall take the lead in this evaluation, working with the Office of Science and report to the Committee not later than August 31, 2009, on its findings.”

(From “Nuclear Energy Research and Development”)

“... The Committee notes that the Department's timeframe for Gen IV reactor designs is approximately 2030. The Committee is aware that the potential commercial application of work previously funded in the NNSA accounts may be in a similar timeframe. The Committee directs the Office of Nuclear Energy, working I cooperation with the Office of Science, to lead an evaluation of the Naval Research Laboratory's use of krypton-fluoride lasers and high performance directly driven targets to generate inertial fusion energy. As detailed under the “Office of Science” appropriation, a report on its findings shall be provided to the Committee not later than August 31, 2009.”

# **Inertial Confinement Fusion Ignition and High Yield Campaign:**

## **Senate:**

“The Committee provides \$453,415,000, an increase of \$16,500,000 to restore operation to current year levels for Sandia’s Z machine and the University of Rochester Omega facility. The Committee is frustrated with NNSA’s inability to provide a balanced program to support full operations at each of the facilities which are critical to understanding the complex high energy density science. The Committee provides \$54,000,000 to Sandia to operate full shift operations and \$55,000,000 to the University of Rochester to support Omega operations.

“The Committee understands the NNSA is preparing to establish an advisory board for the National Ignition Facility experimental program, as recommended by the JASONS, and is considering the establishment of a national ICF/HED advisory committee. The Committee strongly supports the creation of an independent advisory board over the national ICF science and HED physics research. This panel should review the program strategy to ensure the experimental program appropriately manages the facilities and make recommendations on the appropriate scientific and technical aspects of the experimental program.

“The NNSA is to be commended on completing construction of the NIF and the Committee encourages the NNSA to focus on the goal of ignition, for which this facility was built.

“The Committee is concerned by the sole-source award of target development, which is inconsistent with its own policy guidelines. The Committee recognizes that competition will drive innovation and savings into the program. The Committee expects the NNSA to ensure that all future target fabrication solicitations be competitively bid.”

## **House:**

“The Committee recommendation provides \$461,915,000 for the Inertial Confinement Fusion and High Yield Campaign, \$25,000,000 above the request. Within this campaign, the Committee recommends \$20,000,000 above the request, for Facility Operations and Target Production, including not less than \$8,800,000 for the Laboratory for Laser Energetics. Within the Inertial Confinement Fusion and High Yield Campaign, the Committee recommends \$77,252,000, \$5,000,000 above the request, for NIF Diagnostics, Cryogenics and Experimental Support, including not less than \$4,000,000 for the Laboratory for Laser Energetics.”