

**ADDITIONAL VIEWS AND ESTIMATES OF  
REPRESENTATIVE JUDY BIGGERT  
and  
REPRESENTATIVE SHERWOOD BOEHLERT**

While we share the views of the Science Committee as outlined in its views and estimates for Fiscal Year 2003, we wanted to take this opportunity to emphasize the importance and contributions of nuclear energy research at Department of Energy (DOE) national laboratories.

Argonne National Laboratory sites in Illinois and Idaho, Idaho National Engineering and Environmental Laboratory, Lawrence Livermore National Laboratory in California, Los Alamos National Laboratory in New Mexico, and Oak Ridge National Laboratory in Tennessee have been involved in developing proliferation-resistant pyroprocessing and transmutation technologies to reduce the volume and long-term toxicity of spent nuclear fuel, enhance proliferation resistance, and increase the energy yield from uranium.

Unfortunately, the FY 2003 DOE budget proposal reduces funding for the Spent Fuel Pyroprocessing and Transmutation (SFPT) program by \$58.2 million, from \$76.4 million to \$18.2 million. This program should be funded at its FY 2002 level for the following reasons.

- 1) **Spent fuel pyroprocessing and transmutation technologies have the potential to increase the storage capacity of a Yucca Mountain-sized repository by a factor of five.** The Yucca Mountain repository is an essential first step in managing nuclear waste. But Yucca can store only the spent fuel from *existing* U.S. reactors. Absent federal support for the critical nuclear energy research of SFPT, the United States will have no choice but to expand Yucca Mountain or construct another such repository in the years to come. This is especially true if we continue to rely on nuclear power for 20 percent of our nation's electricity, and if the DOE proceeds with its Nuclear Power 2010 initiative, which would deploy a new commercial nuclear power plant by 2010.
- 2) **The proposed reduction in funding for the SFPT program is at direct odds with the high priority the Bush Administration has articulated for this type of research,** both in the President's National Energy Policy and in the FY 2003 DOE budget proposal itself. For example, the President's National Energy Policy stated,

“...in the context of developing advanced nuclear fuel cycles and next generation technologies for nuclear energy, the United States should reexamine its policies to allow for research development and deployment of fuel conditioning methods (such as pyroprocessing) that reduce waste streams and enhance proliferation resistance.”

*(Report of the National Energy Policy Development Group, Page 5-22)*

And the President's FY03 budget proposal for DOE stated that this research would:

“Reduce the quantities of high-level nuclear wastes requiring deep geologic disposal by about 90 percent;

Reduce the period of time waste materials must be isolated from the environment and monitored from 10,000 years to only about 300 years; and

Enable the amount of energy to be obtained from uranium resources to be increased by nearly a factor of ten.”

*(Department of Energy FY03 Congressional Budget Request, Volume 3, Page 145)*

- 3) **The Spent Fuel Pyroprocessing and Transmutation program also is necessary to meet the requirements of a Federal Court Order** requiring that all sodium-bonded spent fuel be treated and removed from the State of Idaho by 2035. DOE’s requested funding level would limit treatment to 500 kilograms per year, and likely less. Even if the pace were maintained at 500 kilograms per year, the remaining inventory of 23,000 kilograms could not be treated and removed by 2035. Extending the treatment schedule beyond 2035 not only would increase the total cost, it would also run contrary to DOE’s announced goal of accelerating cleanup and reducing costs.
- 4) **If this program remains underfunded, a significant number of highly-skilled staff with programmatic or institutional knowledge will be lost.** The loss of such a substantial number of specially trained scientists, engineers, and support personnel – approximately 360 at Argonne alone – would dismantle the last remaining nuclear technology development team in the United States, severely limiting the nation’s ability to provide solutions and assistance for a variety of important national security and waste management issues, both now and in the future.

It is for these reasons that we believe the DOE’s Spent Fuel Pyroprocessing and Transmutation program should be funded at its FY 2002 level. In so doing, Congress will ensure that DOE’s national laboratories can continue developing technologies that promise to reduce the volume and toxicity of spent nuclear fuel, enhance proliferation resistance, and increase the energy yield from uranium.

We believe it is the Science Committee’s responsibility, as the committee of jurisdiction over science and energy programs, to emphasize basic, fundamental science and the importance of such research in addressing energy issues, especially those associated with nuclear energy. We look forward to working with the Budget and Appropriations Committees, the administration, and the DOE to ensure adequate funding and continued oversight of the DOE’s nuclear energy programs.