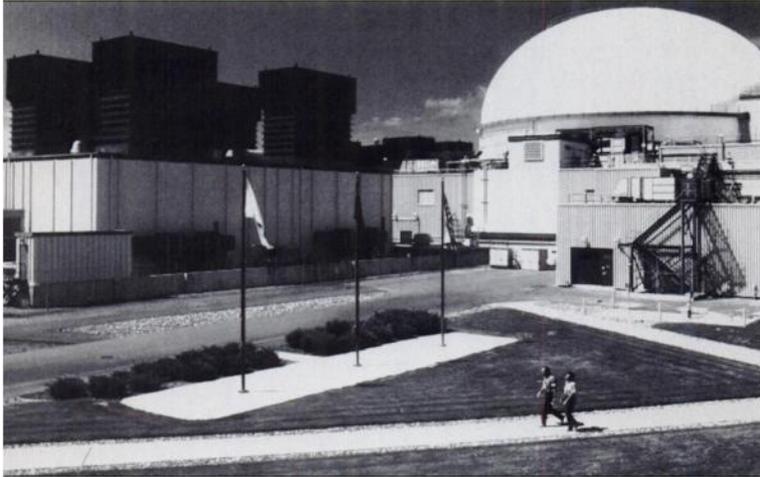


President Clinton Drops Ax on Nuclear Research

President Bill Clinton issued chilling words for nuclear scientists in his February 17 state of the union speech. To cut federal spending by \$246 billion over the next four years, the President would like to eliminate what he called "wasteful" projects "such as nuclear power research and development."

Nuclear investigators funded by the Department of Energy anxiously await announcements of which programs face the budget ax. Among science programs, the Administration has focused mainly on trimming R&D for advanced nuclear electric power



Hanford's Fast Flux Test Facility could fall victim to deficit reduction.

plants. Nuclear-related programs such as nuclear medicine and high-energy physics should survive with relatively minor wounds.

The President's plan, in fact, calls for spending \$420 million to continue work on the Advanced Neutron Source, a research reactor for physics and biology experiments. Overall, less than 2% of the proposed \$54 billion in non-defense cuts identified in the President's deficit-reduction plan are aimed at science and technology funding, according to the House Committee on Science, Space and Technology. The mammoth Advanced Neutron Source, still in the design phase at Oak Ridge National Laboratory in Tennessee,

seemed in danger of losing DOE support after costs estimated at about \$400 million eight years ago eventually mushroomed to over \$2 billion. Conceived as a replacement for two aging test reactors at DOE labs, the ANS would be the world's most powerful reactor for neutron scattering experiments and materials science studies. The reactor could also produce radioisotopes for research and industry.

Nuclear power research, in contrast, faces deep cuts proposed by the President, whose plan eliminates \$820 million over the next four years. The plan includes expenditures of \$38 million to fold certain power reactor programs. According to Congressional sources, two programs are marked for elimination: an existing advanced experimental nuclear power reactor at Idaho National Engineering Laboratory and another still in the design phase.

How the Administration will deal with the Fast Flux Test Facility, originally a power reactor program, is not yet clear. The FFTF gained a temporary reprieve from Energy Secretary Hazel O'Leary, who in February stayed her predecessor's order to close the reactor at the DOE's Hanford Site in Washington. The DOE completed the FFTF in 1982 as part of the breeder reactor program that the government promptly canceled in 1983, leaving the facility without a mission. Former Energy Secretary James Watkins announced in 1990 his intention to close the reactor, saying the department could no longer justify the \$88 million a year operation.

Congressional supporters like Sen. Slade Gorton of Washington defend the reactor as "a national asset that is too precious to throw away." Sen. Gorton says that multi-missions could keep the FFTF in business performing waste transmutation experiments and producing plutonium-238 for powering space probes. He says private firms have expressed "strong interest" in producing medical isotopes at FFTF. The intense neutron flux of the reactor is, Hanford physicists say, ideal for generating radioactive elements of extremely high specific activity useful for cancer therapy radiopharmaceuticals.

Critics say the reactor is ill-designed for commercial radioisotope production. It requires halting the chain reaction each time radioisotope targets are inserted or removed. Some also question whether other missions for the reactor would be compatible with making radioisotopes. And medical radioisotope production alone wouldn't come close to justifying the operating expenses of the FFTF. "It would be like running the Taj Mahal as a newspaper stand," says one industry source.

gress's support for the NBTF will strap them with a program that will soak up funds intended for other DOE research grants. That's why the NBTF proposal has been bounced back and forth between DOE's Office of Nuclear Energy, which handles isotope production, and the Office of Energy Research in charge of biomedical science funding.

Small wonder then that some researchers are wary of supporting the BLIP upgrade. "I think there is a danger in that the interim plan might suggest in many people's minds that the

DOE is not interested in the NBTF," says Wynn A. Volkert, PhD, of the University of Missouri-Columbia, who heads the committee on isotope availability of the Society of Nuclear Medicine.

"Why do we need an interim plan?" asks Dr. Holmes, one of the most outspoken detractors of the BLIP upgrade. "We've suffered without a dedicated accelerator for a long time and I think people are willing to wait until NBTF is online."

Such arguments are dismissed as

"somewhat politically naive" by the administrator in charge of Brookhaven National Laboratory, Nicholas P. Samios, PhD. "In the current fiscal climate, one has to be a bit more flexible to achieve the final goal that we all agree upon," Dr. Samios says. "We all support the NBTF."

Needs Are Immediate

The immediate needs for radioisotopes may overshadow doubts about DOE's intentions. As things stand now, nuclear medicine relies on two DOE ac-