issues &events

Future of US nuclear weapons a tangle of visions, science, and money

As National Nuclear Security Administration officials push for a new nuclear bomb, some scientists and arms control experts are asking what's wrong with the old ones.

In January the US Nuclear Weapons Council was expecting to announce the winner in the new nuclear bomb design competition between Los Alamos National Laboratory in New Mexico and Lawrence Livermore National Laboratory in California. Instead of selecting the design from either one of the weapons labs, the council—a joint organization of the Department of Defense and the National Nuclear Security Administration (NNSA)—was leaning toward combining the designs into a hybrid warhead that, if built, could eventually replace many of the 5000 deployed warheads now in the US arsenal.

The prospect of blending designs from weapons labs that have a history of intense rivalry caught many nuclear weapons experts by surprise, but it would solve a key problem the weapons council has struggled with in trying to select a winner: What happens to the valuable and experienced bomb designers and other weapons workers at the losing lab?

The decision on whether to go forward with the new bomb, known as the Reliable Replacement Warhead, rests with the Bush administration and Congress, but weapons and arms control experts note that the decision is not straightforward. The RRW program, mandated by Congress in 2004 "to improve the reliability, longevity, and certifiability of existing weapons," faces a host of questions based on need and on cost. While the long-term costs of the RRW are uncertain, Congress appropriated about $34 million for the project over the last two fiscal years, and another $27 million was requested in the administration's FY 2007 budget. Weapons experts expect the total cost of the RRW could reach tens of billions of dollars over the next 25 years if the bomb is developed.

And the RRW program is just a piece of NNSA's "Complex 2030" planning scenario, which calls for reorganizing and modernizing the massive national nuclear weapons infrastructure. That infrastructure currently involves eight major facilities spread across the coun-

US–India nuclear pact gets mixed reaction

In the midst of the US government's attempts to refocus its nuclear weapons program and stop the spread of nuclear weapons in hostile countries, President Bush signed legislation in December allowing the sale of civilian nuclear fuel and technology to India and thus reversed 30 years of nonproliferation policy. The legislation allows US companies to sell nuclear fuel to India and invest in and construct new civilian nuclear power plants in that country. In exchange, India will open up 14 of its civilian nuclear reactors to international inspections but keep 8 military reactors off-limits.

"After 30 years outside the system, India will now operate its civilian nuclear program under internationally accepted guidelines, and the whole world is going to be safer as a result," Bush said during the 18 December signing ceremony. The legislation allows the trade in nuclear material despite India's development of nuclear weapons and ongoing refusal to sign the Treaty on the Nonproliferation of Nuclear Weapons (NPT). The law makes India an exception to the US Atomic Energy Act, which prohibits trade of nuclear material with countries that haven't signed the NPT.

Both the US House and Senate voted overwhelmingly in early December to pass the legislation, with Representative Tom Lantos (D-CA) saying it "ushers in a new era of cooperation between our two great democracies." But Rep. Edward Markey (D-MA) termed the deal a "historic mistake" that has "shredded the nuclear nonproliferation treaty."

Markey is one of many critics inside and outside of government who fear the agreement will lead to greater proliferation of nuclear material by weakening the NPT. "The whole system of international nonproliferation was constructed on the basis of norms that apply to everybody," said nonproliferation expert Michael Krepon, president emeritus of the Henry L. Stimson Center, a Washington, DC, think tank that focuses on international security and peace issues.

By making an exception for India despite that country's refusal for decades to sign the treaty and open its nuclear program to inspection, the US has essentially switched to a "good guy, bad guy" system, Krepon said. "When you do that, it explodes the whole nonproliferation system because we can't agree on who the good guys and the bad guys are."

When asked what benefits the US gets out of the treaty, Matthew Bunn, of the Belfer Center for Science and International Affairs at Harvard University, said, "On the proliferation front, the answer is somewhere between not very much and nothing. It is basically an effort by the Bush administration to build a stronger strategic partnership with India."

But Bunn said that despite the weaknesses of the agreement, he doesn't see it as "being as big a disaster as some of my colleagues in the nonproliferation field believe it is." India has long had the capability to produce more weapons-grade plutonium than it is making now, he said, so he doesn't see why it would suddenly increase production.

Bunn, Krepon, and critics on Capitol Hill are concerned, however, about the message the agreement sends to countries such as Iran, North Korea, and even Pakistan. "I have colleagues in Tehran who use the Indian example when talking about Iran's program," Bunn said. "They point to the 1998 sanctions against India [after India tested a series of nuclear bombs]. There were sanctions, then everyone came crawling back."

The India agreement, Bunn continued, has increased the plausibility of the view that "there will be modest and temporary penalties for bad nuclear behavior."

India must now reach an agreement with the International Atomic Energy Agency on the inspections process; the Nuclear Suppliers Group, a coalition of 45 nations that regulates nuclear trade, must unanimously approve the agreement; and the US must still negotiate the technical details for the trade pact. State Department officials expect the process to be completed in six months. **Jim Dawson**