Nuclear Weapons Forever:
The Reliable Replacement Warhead Program

In 2004 the House Appropriations Committee rejected what it called the National Nuclear Security Administration's (NNSA) "extreme nuclear weapons goals" of earth-penetrators and "mininukes." It then redirected requested funding to create the Reliable Replacement Warhead (RRW) program "for improving the long-term safety, reliability, and security of the U.S. nuclear weapons stockpile." The Committee substantially increased funding the next year, but cautioned, "Qualified endorsement of the RRW initiative is based on the assumption that a replacement weapon will be designed only as a re-engineered and remanufactured warhead for an existing weapon system." RRW was adopted in 2005 by Congress as a whole, with the stated aims of reducing any future need to resume nuclear weapons testing, facilitating deep cuts to the stockpile and enabling cost-saving, security-enhancing consolidation of the nuclear weapons complex.

What Do NNSA and the Labs Want?

NNSA and the nuclear weapons design laboratories at Los Alamos, Lawrence Livermore, and Sandia have seized upon the RRW program to advance their own agenda to produce more "usable" bombs for unspecified military requirements and protect their future funding.

These new bombs are the justification for a massive, $150 billion-plus overhaul of the nuclear weapons production complex known as "Complex 2030." Under this plan, NNSA will not close a single one of its nuclear weapons research and production sites.

While Congress intends the RRW program to promote a smaller stockpile, warhead dismantlements remain stalled. In reality, RRW is a "nuclear weapons forever" program, violating the U.S. mandate to disarm nuclear stockpiles under the Nuclear Non-Proliferation Treaty.

U.S. Nuclear Weapons Are Already Reliable

Before the 1992 nuclear weapons testing moratorium, more than a thousand explosive detonations were conducted, building up a huge base of data. Since 1992, all three nuclear weapons labs have annually certified reliability under the Stockpile Stewardship Program. Despite the investment of over $70 billion, the labs now claim that Stockpile Stewardship is no longer sustainable.

Most weapons components are non-nuclear and can be rigorously tested in labs. As weapons age, the greatest uncertainty has centered on plutonium pits, the "triggers" for modern thermonuclear weapons. In November 2006, independent scientists released their review of NNSA's ongoing plutonium aging studies, which concluded that pits last a century or more. In contrast, the oldest U.S. nuclear weapons in the planned stockpile are less than 30 years old. Nevertheless, NNSA now claims that other unnamed factors influence weapons' lifetimes. Finally, the Labs' definition of "reliability" is that a weapon explodes within a certain percentage of its designed yield. It is not a matter of whether the weapon *will* explode, but whether, for example, it detonates at 475 kilotons, not 450 or 500.

Recommendations

- Congress should eliminate funding for the Reliable Replacement Warhead Program.
- Congress should require further review of nuclear weapons reliability by independent technical experts.
- Proceed with accelerated dismantlements and verifiable, irreversible stockpile reductions without the Reliable Replacement Warhead Program.

W76 warheads at Sandia National Laboratory in New Mexico. Maintenance programs have certified the U.S. nuclear stockpile for years.

Is Reliability the Real Issue?

If nuclear weapons reliability really were the key issue, the labs would not be pursuing new warhead designs. Instead, they would employ simple, existing maintenance methods while rigorously avoiding confidence-eroding changes. Long-existing Stockpile Evaluation Programs have maintained warhead reliability annually since 1995, but these programs have been continuously underfunded by NNSA. As a result, critical milestones have been missed or delayed.

Provocative and Expensive

RRW will not be a single type of warhead. Instead, NNSA wants a "continuous design/deployment cycle that exercises design and production capabilities" for up to four RRWs. Changing weapon delivery systems to accommodate the RRW program could cost hundreds of billions of dollars.

NNSA plans to spend more than $725 million by 2012 in direct RRW costs, but this is just the tip of the iceberg. RRW is referenced over 100 times in NNSA's budget request, cutting across numerous programs. For example, planned expanded plutonium pit production is being driven by NNSA's desire to produce at least 125 RRW pits by 2022, and the agency is now asking for $24.9 million to begin design of a related multi-billion dollar "Consolidated Plutonium Center." All together, at least half a billion dollars in RRW-related activities are included in NNSA's Fiscal Year 2008 budget request.

Despite NNSA claims that the RRW program is needed to avoid future testing, new warhead designs may well increase internal pressures to resume full-scale nuclear tests before the military accepts them, with other countries likely following suit. Should RRW spawn a nuclear arms race, the costs would be incalculable.

RRW Violates U.S. Obligations Under the Nuclear Non-Proliferation Treaty (NPT)

A program designed to indefinitely preserve nuclear weapons is contrary to the NPT, which requires all signatories to negotiate in good faith the elimination of their nuclear arsenals. For the sake of national and global security, the NPT should be universally strengthened, not undermined. Former Secretary of State Henry Kissinger, former Senator Sam Nunn, and others have recently called for a world free of nuclear weapons under the framework of the NPT to increase national security.

RRW Is Not Needed as a Separate Program

The U.S. should pursue a truly custodial stewardship program for its stockpile until nuclear weapons are eventually dismantled under the NPT framework. The stated congressional intent to provide reliable replacement components (but not new designs) is already addressed under NNSA's Stockpile Systems and Life Extension programs. These programs should be reoriented to provide custodial stewardship while the stockpile awaits dismantlement. New, untested "reliable" warheads are not needed to enable deep arms control reductions because existing nuclear weapons already have been proven to be so reliable. Accelerated dismantlements and deep reductions can and should take place without the RRW program.

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