nuclear watch new mexico

Nuclear Weapons Forever:
The Reliable Replacement Warhead Program

What is the Reliable Replacement Warhead Program? The Reliable Replacement Warhead (RRW) Program is a congressionally created plan "for improving the long-term safety, reliability, and security of the U.S. nuclear weapons stockpile." RRW was adopted by Congress to reduce the need to return to full-scale nuclear weapons testing and facilitate deep cuts to the stockpile.

In contrast to Congress's vision, the National Nuclear Security Administration (NNSA) sees RRW as an opportunity to create new designs for new military missions. From either perspective, RRW is a "nukes forever" program that violates the mandate to disarm nuclear stockpiles under the NonProliferation Treaty (NPT). It may actually increase pressure to resume nuclear testing because of uncertainty over how new weapon designs will perform. In fact, the existing stockpile is already highly reliable.

Status of the RRW Program. In Fiscal Year (FY) 2005 the House Appropriations Committee rejected what it called the NNSA's "extreme nuclear weapons goals" of earth-penetrators and "mini-nukes" and created the RRW Program. 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 in the stockpile."

What Do NNSA and the Labs Want? The National Nuclear Security Administration, the Department of Energy's semi-autonomous nuclear weapons agency, and the design labs at Los Alamos, Lawrence Livermore and Sandia have seized upon the RRW Program to advance their agenda to design and produce more "usable" bombs. The head of NNSA stated to Congress, "The Cold War legacy stockpile may also be the wrong stockpile from a military perspective." He added, "We should be able to develop and produce by the 2012-2015 timeframe a small build of warheads in order to demonstrate that a RRW system can be manufactured and certified without nuclear testing." Following that, the labs declared, "The warhead designs that drive the enterprise must change… The enterprise must soon begin the shift to the production of reliable replacement warheads for existing (or subsequent) DoD delivery systems."

Unreliable Replacement Warhead? Senior nuclear weapons scientists have stated, "It takes an extraordinary flight of imagination to postulate a modern new arsenal composed of such untested designs that would be more reliable, safe, and effective than the current U.S. arsenal based on more than 1,000 tests since 1945."

U.S. Nuclear Weapons Are Already Reliable. Before the 1992 moratorium, more than a thousand tests 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 $68 billion invested, 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 uncertainty has centered on plutonium pits, the "triggers" for modern thermonuclear weapons. Initial studies by the labs themselves have found "no first-order [aging] effects after decades." Senior nuclear weapons scientists have concluded that pits last at least 60 to 90 years,

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in contrast to NNSA's publicly stated 45 year lifetime. NNSA has delayed completing a study that should provide conclusive results. 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 it detonates at, for example, 475 kilotons, not 450 or 500.

Is Reliability the Real Issue? If reliability were really the labs' key issue, they would not pursue new designs. Instead, they would continue to employ simple, proven methods. Senior weapons scientists have consistently pointed out that more frequent replenishment of tritium, radioactive hydrogen used to boost weapons yield, is a "straightforward" way to ensure reliability.

Provocative and Expensive. Despite claims that RRW is needed to avoid future testing, new warhead designs may well increase internal pressure to resume full-scale nuclear tests before the military would accept them. Other countries would likely follow suit.

The planned transformation of the stockpile through RRW will instigate a similar transformation throughout the nuclear weapons complex that will cost many billions. RRW will not be just a single type of warhead, but will include replacements for most of the eight nuclear weapons systems in the existing stockpile. Changing delivery systems to accommodate RRW could cost hundreds of billions. Should RRW spawn a nuclear arms race, the costs would be incalculable.

The FY 2007 budget request for RRW is the tip of a much larger funding iceberg. The RRW program is referenced in the budget request nearly 100 times, with activities cutting across numerous program elements, including high explosives modeling and testing, new engineering projects and plutonium pit production. Taken together, the 2007 budget request is estimated to contain about $300 million in RRW-related activities.

RRW violates U.S. obligations under the Nuclear NonProliferation Treaty.
The NPT requires all signatories to negotiate in good faith the elimination of their nuclear arsenals. A program designed to indefinitely preserve nuclear weapons is contrary to that mandate. For the sake of national and global security the NPT should be universally strengthened and not undermined by the U.S.

RRW is not needed as a stand-alone program. The U.S. should pursue a truly custodial stewardship program for its nuclear stockpile while awaiting eventual dismantlement under the framework of the NPT. The stated congressional intent to provide reliable replacement components (but not new designs) already takes place under NNSA's existing Stockpile Systems and Life Extension Programs. These well-funded programs can provide custodial stewardship while the stockpile awaits dismantlement.

Recommendations:

Congress should eliminate funding for the Reliable Replacement Warhead Program. Reliable replacement components can be installed under the NNSA's existing Stockpile Systems and Life Extension Programs.

Congress should legislatively prohibit new designs and military missions for RRW.

Congress should require NNSA to complete its plutonium pit lifetime study.

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