

Prepared Remarks before the:

House Committee on Appropriations,  
Subcommittee on Energy and Water

The Future of the DOE Complex Transformation Program

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2362B Rayburn House Office Building

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Chairman Visclosky, Ranking Member Frelinghuysen, distinguished Members of the Committee, I very much appreciate the opportunity to appear before you today to support your examination of ways to reduce the cost of operating the nuclear weapons complex at various levels of the nuclear stockpile.

I am a Senior Advisor to the non-profit Center for Defense Information, a division of the World Security Institute, a Washington, D.C.-based national security study center. To help insure our independence, the World Security Institute and the Center for Defense information do not accept any funding from the Federal government, nor from any defense contractors.

In 2005 and 2006, I served on the nine-member Defense Base Realignment and Closure Commission, appointed by President George W. Bush and nominated by House Democratic Leader, Nancy Pelosi.

Beginning in late 2004, I served on Governor Arnold Schwarzenegger's Base Support and Retention Council, from which I resigned to serve on the President's Commission.

From 1994 to 2001 I served in the Pentagon as Assistant Secretary of Defense and Director, Operational Test and Evaluation. In this capacity, I was principal advisor to the Secretary of Defense and the Undersecretary of Defense for Acquisition, Technology and Logistics on test and evaluation in the DOD. I had OSD OT&E responsibility for over 200 major defense acquisition systems including the present-day offensive strategic missile programs.

From 1959 to 1979, and again from 1981 to 1993, I worked at the Lawrence Livermore National Laboratory. Over those 33 years I worked on a variety of nuclear weapons and other high technology programs. My experience with nuclear weapons included original engineering design of new weapons, manufacturing and production, testing, and stockpile surveillance and stewardship. I retired from the Laboratory in 1993 as Laboratory Associate Director and deputy to the Director.

In my current capacity at the Center for Defense Information I am called upon to provide independent analysis on various defense matters. I have over 40 years of experience involving U.S. and worldwide military research, development and testing, on operational military matters, and on national security policy and defense spending.

### Introduction

Just three weeks ago, on February 26, 2009, the Obama administration released its overall topline budget request for fiscal year 2010.

The Department of Energy National Nuclear Security Administration (NNSA) section of the President's budget states, "Development work on the Reliable Replacement Warhead will cease, while continued work to improve the nuclear stockpile safety, security, and reliability is enhanced with more expansive life extension programs." [1]

This policy change will impact significantly the planning for NNSA's Complex Transformation effort, and also will reduce the overall cost, since future production capability can be reduced. This is particularly true for future plutonium pit production that NNSA has been planning at higher than required levels.

Accordingly, I expect the DOE will revise its plan for NNSA Complex Transformation to take into account this change, or at least indicate that it intends to do so in the months to come. As such, today your witnesses are in the position of commenting on a plan for Complex Transformation that has been overtaken by events.

For this reason, it is quite appropriate that the Congress, and especially this Subcommittee, is closely examining the proposed workload for NNSA Complex Transformation, formerly called Complex 2030.

Assumptions made about how many nuclear warheads might be produced in the future are key to sizing the NNSA production complex for the future. In the past, Complex Transformation has assumed that the United States will maintain a large, roughly 6000 warhead total stockpile for the indefinite future. In the past, before the Obama administration's decision to halt work on the Reliable Replacement Warhead (RRW), NNSA Complex Transformation was being sized to build RRWs while also continuing regular stockpile stewardship activities with the existing U.S. nuclear weapons stockpile. To sustain a status quo stockpile, while also building RRWs to replace it, as well as having surge capability to rapidly build more nuclear weapons in an emergency, would require that Complex Transformation have a much greater production capacity than the existing DOE production complex.

This would not be consistent with DOE's commitment to transform the NNSA production complex "into smaller and more efficient operations."

Indeed as NNSA reports in its December 19, 2008 Record of Decision, "NNSA does not foresee an imminent need to produce more than 20 pits per year to meet national security

requirements.” [2]

If Complex Transformation were sized to continue current stockpile stewardship activities, while also building new RRWs to replace the existing stockpile, and also maintaining a surge capacity, Complex Transformation would need roughly twice the production capacity. Now that the Obama administration has made a decision to halt the RRW, the production workload for Complex Transformation can be cut in half.

The Need for High-Level, Long-Term U.S. Nuclear Weapons Policy

As pointed out in the Defense Science Board study on Nuclear Capabilities, and the Defense Threat Reduction Agency sponsored report on Foreign Perspectives, there has been virtually no high-level, long-term articulation of U. S. nuclear policy.

These and other studies have also pointed out that the White House, the DOD and DOE/NNSA, and the Congress need to develop and agree upon a policy and plan that has bipartisan support for the future nuclear weapons program and can be supported by this and future administrations. U.S. nuclear weapons policy evolves slowly and is most enduring and successful when it bridges successive administrations.

In testimony on July 17, 2008, before the House Armed Services Committee, the GAO reported, “NNSA and DOD have not established clear, long-term requirements for the nuclear weapons stockpile. While NNSA and DOD have considered a variety of scenarios for the future composition of the nuclear weapons stockpile, no requirements have been issued. It is GAO’s view that NNSA will not be able to develop accurate cost estimates or plans for Complex Transformation until stockpile requirements are known.” [3]

Two weeks ago GAO reviewed the history of DOE’s track record of project management before this Subcommittee. GAO reported that 8 of the 10 major NNSA and EM construction projects the GAO reviewed in March 2007 had exceeded the initial cost estimates for completing these projects - - in total DOE added nearly \$14 billion to these initial estimates.” GAO also reported that “9 of 10 major construction projects were behind schedule - - in total, DOE added more than 45 years to the initial schedule estimates.” [4]

It is expected that the Congressional Commission on the Strategic Posture of the United States, established in 2007, will play an important role in shaping future U.S. strategic policies. This Commission released its Interim Report to Congress on December 15, 2008, and its final report is expected this coming April. The Interim Report did not answer the need for a high-level, long-term U.S. Nuclear Weapons policy, but the Final Report may.

Following the Final Report of the Strategic Posture Commission will be the Nuclear Posture Review (NPR) to be conducted by the Obama administration in 2009 or later. The last NPR was released in December 31, 2001, and stated the goal of maintaining between 1700 and 2200 operationally deployed nuclear weapons by 2012, a goal that was

reiterated in May, 2002 in the Moscow Treaty. The 2002 NPR also projected that the current force would remain until 2020 or longer.

The next NPR will be influenced by the administration's efforts to attain lower stockpile levels in negotiations with Russia.

These documents will form the basis for planning Complex Transformation and it will be futile for DOE to try to proceed with Complex Transformation without them.

In particular, the Chemistry and Metallurgy Research Replacement Nuclear Facility at Los Alamos and the Uranium Processing Facility at Y-12, proposed under Complex Transformation, should not be sized or funded by this Subcommittee based on outmoded assumptions.

The NNSA itself has recognized this reality, saying for example in its December 19, Record of Decision, "Until completion of a new Nuclear Posture Review in 2009 or later, the net production at LANL would be limited to a maximum of 20 pits per year."

Meanwhile, to reduce its overall costs of operation, the DOE is in the process of closing, mothballing, or dismantling unneeded facilities. In addition, the DOE is requiring its Laboratories and plants to reduce the footprint from unneeded facilities as part of any new construction that takes place.

Thus, cost benefits are already being obtained under DOE's philosophy to reduce its footprint and minimize expenses.

#### Projected Workloads

The Complex Transformation effort has been assuming that the United States will and should maintain a large nuclear arsenal of roughly 6,000 warheads, including reserves, for the foreseeable future, for least 50 years.

However, the total U.S. stockpile is already much smaller than this. According to an official estimate by the U.S. State Department, the "number of U.S. operationally deployed strategic nuclear warheads was 2,871 as of December 31, 2007." [5]

Further reductions have occurred since. As reported by the Washington Post and the Bulletin of Atomic Scientists last month, the United States has successfully reduced its operationally deployed nuclear weapons stockpile, reaching the upper limit level of 2200 required under the Moscow Treaty in early February 2009, three and a half years ahead of schedule. [6]

However, in recent years NNSA has proposed wide-ranging needs for pit production rates that are not consistent with these current realities. In its FY-2005 budget request, NNSA proposed a Modern Pit Facility that could produce up to 450 pits per year, much more than needed. In October 2006, after the Chairman of this Subcommittee questioned the need for such a high level of production, NNSA proposed a "Consolidated Plutonium

Facility” with the capability to produce 125 pits per year. When this Subcommittee questioned that proposal also, the current Complex Transformation Supplemental Programmatic Environmental Impact Statement proposes the capability to manufacture up to 80 pits per year at Los Alamos.

Assuming that the United States is committed to further reductions in U.S. nuclear weapons stockpiles - perhaps to a few hundred residual warheads - and also committed to work toward a global prohibition on nuclear weapons, the construction over the next 30 years of a new infrastructure that would manufacture hundreds of new warheads would not be required. For example, a much smaller pit production or refurbishment capability could be recommended.

As the U.S. nuclear weapons stockpile is reduced - and it appears that it will be the policy of the Obama administration to reduce it - then by reusing and recycling pits an expensive high-capacity plutonium-pit production facility is not necessary. In fact, the Pantex Plant is currently authorized to “reuse” up to 350 pits per year, which Pantex points out is far less expensive and environmentally damaging than the production of new pits.

Pantex currently stores more than 14,000 plutonium pits, and has requested authority to increase its storage capacity to 20,000 pits. Thus, there is no shortage of pits for reuse or recycling and, if needed, smaller numbers of pits could be made at Los Alamos. In general terms, an average production rate of only about 25 pits per year could sustain the U.S. strategic stockpile if it were reduced to about 1,000 warheads by 2050.

#### An Adaptive Complex: Complex Transformation Inflection Points

It would be helpful to the Obama administration and to Congress if the NNSA would examine its Complex Transformation plans for inflection points, that is, workload assumptions that create significant benefits in the relative cost and schedule to achieve a particular capacity. Such a study could be regarded as a first step in thinking through the type of adaptive production complex the country might need in the coming decades. The premise for this study would be that the production rates for the near term are not expected to be required in the years to come. NNSA might then design the complex differently than if it were sized only for a maximum or peak production rate much higher than expected to be required in the future.

In addition to sizing what could be called an “Adaptive Complex” to sustain the stockpile projected in 2012 at less than 2200 weapons, the NNSA might also look at 1,000 strategic weapons - about half that level - and at 500 weapons about one quarter the 2012 level. As explained below proposals for levels of 1000 and 500 weapons have gained considerable constituency. [7]

Then for the Adaptive Complex, NNSA could consider the type of production complex and Laboratory structure it would need to sustain a strategic stockpile of just 100 strategic weapons. 100 weapons is regarded as a logical step towards a world free of nuclear weapons. In the years ahead, if the U.S. and Russia could agree to reduce their stockpiles

to the order of 100 weapons, at that point, the nuclear weapons capabilities of other countries – China, France, Great Britain, Israel, India and Pakistan – must be negotiated downward in concert with further reductions in U.S. and Russian stockpiles.

#### U.S. Nuclear Weapons Stockpile Reductions

In testimony before the House Armed Services Committee on July 17, 2008, Administrator Thomas P. D’Agostino described the progress made over the past few years in reducing the size of the U.S. nuclear weapons stockpile, as follows: “In 2002, President Bush and President Putin signed the Moscow Treaty, which will reduce the number of our operationally deployed strategic nuclear warheads to 1,700 to 2,200 by 2012. In 2004, the President issued a directive to cut the entire U.S. nuclear stockpile—both deployed and reserve warheads—in half by 2012. But this goal was later accelerated and achieved 5 years ahead of schedule in 2007. As of the end of 2007, the total stockpile was almost 50 percent below what it was in 2001, when the President took office. On December 18, 2007, the White House announced the President’s decision to reduce the nuclear weapons stockpile by another fifteen percent by 2012. This means the U.S. nuclear stockpile will be less than one-quarter its size at the end of the Cold War—the smallest stockpile in more than 50 years.”

The relative ease at which these reductions have been implemented reveals the thinking of U.S. strategic planners. Although many of the weapons eliminated under the Moscow Treaty will be held in reserve, nuclear strategists have been fairly comfortable adjusting to lower figures and have not raised any significant resistance. However, it is also important to note that a substantial part of the reductions under the Moscow Treaty occur simply by “naming” nuclear weapons as being in reserve, not by actually dismantling them. Thus, decision makers and strategists can argue that they need to maintain a nuclear infrastructure that accommodates a reserve level much higher than the Moscow Treaty limits.

#### Tactical Nuclear Weapons

Except for dismantlements, tactical nuclear weapons are not a significant factor in sizing the future U.S. nuclear weapons complex. From the point of view of an American president, tactical nuclear weapons have little deterrent value and it is difficult to imagine the circumstances in which an American president would order their use.

Before an American president would order the use of nuclear weapons - especially the use of tactical nuclear weapons - certain criteria would be considered.

These criteria are a necessary, but not necessarily sufficient, set, as other factors might further pertain against nuclear use. For an American president to choose to use nuclear weapons, the following would be required:

- 1) A unique mission or crisis situation that is extremely unlikely to be solved by other means, such as diplomacy.
- 2) A mission that cannot be accomplished as well or with the required decisive finality if conventional weapons had been used.

- 3) A mission whose benefits must outweigh the inevitable backlash, recriminations and criticisms that would follow, and
- 4) A mission that has to put an end to the crisis situation that motivated the use of nuclear weapons in the first place. If the end result is unchanged or the problem is essentially ongoing, no U.S. president could justify the use of nuclear weapons.

There are few missions that would meet these requirements. U.S. conventional capability offers other ways to accomplish many of the missions tested by the first criterion. Under the second criterion, although conventional weapons strikes might not be able to eliminate the threat as conclusively, they could probably do so if their deployment level was increased. Hard targets that could not be conclusively destroyed with conventional bombs or missiles might be taken out by ground forces.

The third criterion is also significant. Using nuclear weapons would have enormous costs; only removing an extraordinarily immediate and severe threat to U.S. security would justify their use. This will likely remain the case unless there is some shift that eliminates the nuclear taboo. The United States didn't use nuclear weapons against North Korea in the 1950s when – compared to today – the U.S. military had many fewer options, and when it might have been more politically acceptable to do so. As time has passed, the nuclear taboo has only become stronger, and it remains despite the confusion and uncertainty of the post-Cold War period.

Also, the unique cost of nuclear weapons suggests that any proposed use should have some finality in addressing the ultimate threat. Nuclear weapons used against individual nuclear installations or individual terrorist bases would not eliminate the overall problem. The demonstrated use of nuclear weapons might alter the threat perceptions of some U.S. foes, but, given the motivations of conceivable future adversaries, it could also enhance their commitment. The difficult fourth criterion of finality symbolizes why we still hear inchoate threats of nuclear retaliation to a hypothetical major terrorist attack.

At present, Russia views nuclear weapons, including tactical nuclear weapons, as a deterrent to America's conventional military superiority. Ironically, this is exactly the argument that the U.S. made during the Cold War when America felt it needed a "flexible response" to stop the vast Russian Army coming through the Fulda Gap.

Nevertheless, both because of the large numbers of tactical nuclear weapons which the United States still retains, and the likelihood that an American president would not order their use, Complex Transformation does not need to plan appreciable capacity to replace those tactical nuclear weapons. Thus, Complex Transformation that supports operationally deployed strategic nuclear weapons supports the U.S. nuclear weapons deterrent overall.

#### Next Steps in Nuclear Arms Reductions

For three decades the U.S. Congress also has supported the continuing reductions in the stockpiles of U.S. nuclear weapons regardless of the political party in power.

Going beyond the reductions in the Moscow Treaty, nuclear strategists are entertaining prospects of lower and lower totals of nuclear weapons. As a next step, a stockpile of 1000 U.S. nuclear weapons has been proposed and has gained wide acceptance in the United States.

A 1997 study by the National Academy of Sciences called for “a program of progressive constraints to reduce U.S. and Russian nuclear arsenals to 1,000 total warheads each and then, if security conditions permit, to a few hundred warheads, provided adequate verification procedures and transparency measures have been implemented.” [8]

Authored by a group of distinguished scientists, retired senior military officers and experts policy analysts, most of whom have been closely associated with various aspects of nuclear security affairs, the study set a credible goal for next steps in nuclear arms reductions by the United States and Russia.

Various posture proposals with a 500-warhead figure also are being advocated. [9]

The fiscal year 2008 Defense Authorization Act mandates two separate nuclear posture reviews that may well affect future U.S. policy. [10] Yet recent posture proposals still don't persuasively articulate the contemporary missions of the American nuclear forces that might remain after further reductions. If many of the proposed missions for nuclear weapons are not credible within the security future of the United States, those missions will not justify the retention of nuclear weapons to carry them out.

As the continued reductions occur, many of the long-held assumptions and analytical frameworks that undergird the U.S. nuclear weapons posture become more tenuous. Past assumptions are not a basis for predicting future requirements. Most critically, as the U.S. nuclear stockpile passes below 1,500 nuclear weapons to the next stage of 1,000 or even 500, the planning assumptions for Complex Transformation cannot be based on the past.

Slowly but surely the Pentagon has been shifting away from the nuclear option in almost all of its war plans. One conventional option is Prompt Global Strike (PGS), that is, the rapid delivery of conventional weapons at intercontinental range. The continuing development of the PGS program and framework demonstrates that U.S. military planners desire conventional options to deal with situations where it is desirable to attack targets at long ranges on short notice. By definition, such situations call for swift action or response, using conventional – not nuclear - warheads. The Pentagon has illustrated the desire to incorporate conventional alternatives by refashioning the traditional nuclear triad into a “New Triad” that incorporates non-nuclear strike capabilities.

Indeed, the U.S. military has never preferred nuclear options, and gradually over the past fifty years military planners have moved away from options that involve nuclear forces. Such changes are often prompted within the U.S. military itself: first with the Army giving up its tactical nuclear weapons, and then with the Navy and the Air Force doing



likewise. Today, U.S. nuclear capabilities are centered in the “Nuclear Navy” of ballistic missile submarines and in the Strategic Air Force. Increasingly, these outposts appear more and more isolated from the rest of the DOD.

#### “A Nuclear Free World”

As this Subcommittee well knows, George Shultz, Henry Kissinger, Bill Perry and Sam Nunn have proposed a world free of nuclear weapons. [11] Their time line is longer than an Energy and Water Appropriations time line, but there are near term implications for Complex Transformation.

The Obama administration supports this initiative, as explained on the new White House web site:

"Move Toward a Nuclear Free World: Obama and Biden will set a goal of a world without nuclear weapons, and pursue it. Obama and Biden will always maintain a strong deterrent as long as nuclear weapons exist. But they will take several steps down the long road toward eliminating nuclear weapons. They will stop the development of new nuclear weapons; work with Russia to take U.S. and Russian ballistic missiles off hair trigger alert; seek dramatic reductions in U.S. and Russian stockpiles of nuclear weapons and material; and set a goal to expand the U.S.-Russian ban on intermediate-range missiles so that the agreement is global."

In its Interim Report, the Strategic Posture Commission also touches on the Shultz et al vision:

"Four senior statesmen have urged that the nation work towards the global elimination of nuclear weapons. It is clear that the goal of zero nuclear weapons is extremely difficult to attain and would require a fundamental transformation of the world political order. If, however, the new administration accepts their proposal as a long-term goal, there are steps that could be taken in the next few years that would be consistent with such a goal and, at the same time, consistent with maintaining and even increasing our security. Some of our recommendations will deal with such steps."

"Steps that could be taken in the next few years that would be consistent with" the zero option are expected to be outlined in the Commission's Final Report, and those steps will likely be of immediate priority for the NNSA and for this Subcommittee.

#### Complex Transformation and Arms Control

The National Nuclear Security Administration, the part of the DOE responsible for nuclear weapons, has been approaching Complex Transformation as a largely technical and managerial matter. However, Complex Transformation has been criticized not only for its planning, cost and management issues, but for the arms control and nuclear proliferation issues it raises.

By way of example, and to draw an analogy with the RRW which until recently has been central to the planning assumptions for Complex Transformation, at a House Energy and Water Appropriations hearing on March 29, 2007, former senator and long-time chairman of the Senate Armed Services Committee, Sam Nunn, summarized the situation

this way: “On the RRW itself, if Congress gives a green light to this program in our current world environment, I believe that this will be misunderstood by our allies, exploited by our adversaries, complicate our work to prevent the spread and use of nuclear weapons ... and make resolution of the Iran and North Korea challenges all the more difficult.”

In short, Senator Nunn and other witnesses questioned how the RRW might impact nuclear non-proliferation efforts worldwide.

Senator Nunn’s comments could also be applied to the NNSA Complex Transformation effort. If the United States builds a production complex with substantially larger capacity than required to sustain intended U.S. stockpile levels, then that could also be “misunderstood by our allies, exploited by our adversaries, and complicate our work to prevent the spread and use of nuclear weapons ... and make resolution of the Iran and North Korea challenges all the more difficult.”

As Senator Nunn testified, himself no stranger to the responsibilities of congressional oversight, “I believe that we need a strategic reassessment of the role and purposes of nuclear weapons in the 21st century and an urgent change in direction with both vision and steps. This change in direction should precede congressional decision on the RRW. I would not fund additional work on the RRW at this time.”

At the same hearing, former Secretary of Defense William Perry noted that maintaining the capability of U.S. nuclear weapons designers would be important if we ever needed to design more nuclear warheads. But Dr. Perry also noted that present U.S. nuclear weapons will retain their capability for 50 to 100 years, particularly if the United States continues to downsize its nuclear arsenal. He summarized saying, “On balance, I believe that we could defer action for many years on an RRW program, and I have no doubt that this would put us in a stronger position to lead the international community in the continuing battle against nuclear proliferation, which threatens us all.”

Again, both Senator Nunn’s and Dr. Perry’s comments could be applied equally well to the planning for the NNSA Complex Transformation effort, and go hand in hand with that planning, since the future NNSA production complex will be sized to support Americas strategic nuclear weapons needs.

Considering such strong testimony from such highly-regarded statesmen, the arms control implications of the proposed NNSA Complex Transformation program need to be thought through. For example, if the tables were turned, and Russia and/or China were building a new industrial capacity to sustain a stockpile with twice as many nuclear weapons as they said they intended to keep, the United States would likely question the sincerity of their declared peaceful intentions.

Mr. Chairman, this completes my prepared testimony. I would be pleased to take any questions you and the Subcommittee might have.

End Notes:

[1] “A New Era of Responsibility” – The 2010 Budget, U.S. Government Printing Office Washington D.C. 2009.

[www.whitehouse.gov/omb/assets/fy2010\\_new\\_era/Department\\_of\\_Energy.pdf](http://www.whitehouse.gov/omb/assets/fy2010_new_era/Department_of_Energy.pdf)

[2] Energy Department, NNSA, “Record of Decision for the Complex Transformation Supplemental Programmatic Environmental Impact Statement—Operations Involving Plutonium, Uranium, and the Assembly and Disassembly of Nuclear Weapons,” Federal Register, vol. 73, no. 245, December 19, 2008, p. 77,647,  
<http://www.complexttransformationspeis.com/project.html>

[3] Testimony, Nuclear Weapons – Views on NNSA’s Proposal to Transform the Nuclear Weapons Complex, GAO-08-1032T, July 17, 2008.

[4] Testimony, Contract and Project Management Concerns at the National Nuclear Security Administration and Office of Environmental Management, GAO-09-406T, March 4, 2009.

[5] State Department, Bureau of Verification, Compliance, and Implementation, “2008 Annual Report on Implementation of the Moscow Treaty,” 2008, p. 2.

[6] U.S. Ahead of Moscow Treaty Schedule in Reducing Its Nuclear Arsenal, Washington Post, February 13, 2009.  
Bulletin of the Atomic Scientists, March/April 2009. “Nuclear Notebook: U.S. Nuclear Forces, 2009. Robert S. Norris and Hans M. Kristensen

[7] Policy Memo, March 3, 2009, The Stanley Foundation.  
[http://www.stanleyfoundation.org/publications/policy\\_memo/RealizNukeDisarm309.pdf](http://www.stanleyfoundation.org/publications/policy_memo/RealizNukeDisarm309.pdf)

[8] National Academy of Sciences, The Future of U.S. Nuclear Weapons Policy (Washington, D.C.: National Academy Press, 1997.)  
See also for example the Stanley Foundation Policy Memo, March 3, 2009.

[9] The Drell-Goodby proposal is of 500+500 force “of 500 operationally deployed nuclear warheads, plus 500 in a responsive force.” Sidney D. Drell and James E. Goodby, What Are Nuclear Weapons For? Recommendations for Restructuring U.S. Strategic Nuclear Forces, Arms Control Association: Revised and Updated October 2007,  
[http://www.armscontrol.org/pdf/20071104\\_Drell\\_Goodby\\_07\\_new.pdf](http://www.armscontrol.org/pdf/20071104_Drell_Goodby_07_new.pdf), p. v.

[10] Congress has mandated a special Congressional Commission on Strategic Posture, which released its Interim Report December 15, 2008. The regular Nuclear Posture Review is mandated to release its report to Congress “not later than March 1, 2010.”

[11] George P. Schultz, William J. Perry, Henry A. Kissinger, and Sam Nunn, “A World Free of Nuclear Weapons,” Wall Street Journal, January 4, 2007; George P. Schultz,

William J. Perry, Henry A. Kissinger, and Sam Nunn, "Toward a Nuclear-Free World,"  
Wall Street Journal, January 15, 2008.

[Energy and Water Appropriations]

## Witness Disclosure Form

**Clause 2(g) of rule XI of the Rules of the House of Representatives requires non-governmental witnesses to disclose to the Committee the following information. A non-governmental witness is any witness appearing on behalf of himself/herself or on behalf of an organization other than a federal agency, or a state, local or tribal government.**

Your Name, Business Address, and Telephone Number:

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1. Are you appearing on behalf of yourself or a non-governmental organization? Please list organization(s) you are representing.

On behalf of myself

2. Have you or any organization you are representing received any Federal grants or contracts (including any subgrants or subcontracts) since October 1, 2006?

~~Yes~~  No NO

3. If your response to question #2 is "Yes", please list the amount and source (by agency and program) of each grant or contract, and indicate whether the recipient of such grant or contract was you or the organization(s) you are representing.

None



3-9-09

Signature:



Date: March 9, 2009

Please attach a copy of this form, along with your curriculum vitae (resume) to your written testimony.

Philip Coyle is a Senior Advisor to the President of the World Security Institute, and to its Center for Defense Information, a Washington D.C.-based national security study center. He is a recognized expert on U.S. and worldwide military research, development and testing, on operational military matters, and on national security policy and defense spending. Mr. Coyle served on the nine-member 2005 Defense Base Realignment and Closure Commission, appointed by President George W. Bush and nominated by House Democratic Leader, Nancy Pelosi. From 1994, to 2001, Mr. Coyle was Assistant Secretary of Defense and Director, Operational Test and Evaluation, in the Department of Defense, and is the longest serving Director in the 25 year history of the Office. In this capacity, he was the principal advisor to the Secretary of Defense on test and evaluation in the DoD. Mr. Coyle has 40 years experience in research, development, and testing matters. From 1959 to 1979, and again from 1981 to 1993, Mr. Coyle worked at the Lawrence Livermore National Laboratory in Livermore, California. From 1987 to 1993, he served as Laboratory Associate Director and Deputy to the Laboratory Director. In recognition of his 33 years service to the Laboratory and to the University of California, the University named Mr. Coyle Laboratory Associate Director Emeritus. During the Carter Administration, Mr. Coyle served as Principal Deputy Assistant Secretary for Defense Programs in the Department of Energy (DOE). In this capacity he had oversight responsibility for the nuclear weapons research, development, production and testing programs of the Department.

Mr. Coyle graduated with a AB degree from Dartmouth College in 1956 and with a Master's degree in Mechanical Engineering from Dartmouth College in 1957.