

**Written Statement Submitted by
HON Lisa E. Gordon-Hagerty
Senate Armed Services Committee
Subcommittee on Strategic Forces
June 16, 2021**

Chairman King, Ranking Member Fischer, distinguished members of this subcommittee, thank you for the invitation to testify before you about the state of the US nuclear deterrent, the Nuclear Complex which supports it and the policies affecting it. My perspective today is from that of a career professional, having served over 35 years in the United States government, both in national and nuclear security positions, as well as for a period in the private sector. My most recent position was as the fifth Administrator of the National Nuclear Security Administration (NNSA). I was truly honored to return to the Government to serve our great Nation once again and work with the dedicated men and women of the Nuclear Security Enterprise, Armed Forces, the interagency and international partners to continue maintaining and supporting the much-needed modernization of our nuclear deterrent, executing arms control and nonproliferation initiatives as well as supporting the US Navy fleet of nuclear-powered aircraft carriers and submarines. The opinions expressed are my own.

For seven plus decades, the cornerstone of our great Nation's security has been grounded in our nuclear deterrent. Throughout this period, our Allies and partners have also chosen to rely on the strength and commitment of the United States to extend our defense on their behalf against potential threats posed by adversaries. Notably, over this long period of peace, opportunities arose for some Nations to become nuclear weapon states but chose not to do so given the commitments of the United States. We have advanced, however, to an era where near-peer nuclear competitors, adversaries and malign actors pose new and asymmetric threats against the United States and her Allies. In addition to the ever-present strategic nuclear threat against which we have planned for many decades, those same nations and others are constantly bombarding our government and private sector systems with cyber, international crime and terrorist attacks. While it is now commonplace to learn about the high-profile cyber attacks or ransomware incidents, millions of penetrations are taking place in the background. While we should prepare for and defend against these new challenges, I urge the policymakers not to lose sight of the bedrock of our national security.

Now more than ever, our near peer competitors and adversaries are monitoring our policy decisions and actions, or in some cases, inactions, and either perceive or believe that the United States is close to the breaking point in modernizing our deterrent. The United States no longer has the luxury of time, nor should it continue to delay its efforts and willingness to preserve our strength. One only need to look at the massive nuclear modernization efforts of both Russia and China. Russia's strategic forces are currently undergoing a comprehensive modernization in their force structure, operations and planning, and as we have witnessed, they are also pursuing novel nuclear weapons that are not covered by New START. China continues to increase the number, capabilities and protection of its nuclear force, and its lack of transparency regarding the scope and scale of its nuclear modernization program raises questions regarding its future intent. Both countries are investing significant resources in delivery platforms such as hypersonic glide vehicles while they attempt to undermine US alliances around the world. However, it is not just the threat of increasing their stockpiles or regional adversaries crossing the nuclear threshold that

is troubling. These nuclear powers have made clear that nuclear weapons will be a vital element of their respective security postures that will continue to threaten US interests around the world for the foreseeable future.

It is often said that the United States uses its nuclear weapons every day to maintain the peace and global stability. But few recognize that the Nuclear Triad which keeps that peace is a combination of Department of Defense (DoD) and the NNSA Nuclear Security Enterprise (NSE). US Strategic Command leadership, coupled with US Navy and Air Force delivery platforms that make up the Triad are supported by the NNSA which produces the nuclear explosive package. That is an important factor which distinguishes the responsibilities of both agencies because neither can execute their respective missions without the other, a military/civilian marriage of sorts.

Learning from History

Whereas the United States often speaks to the robustness of our deterrent which keeps the peace, we are at a crossroads that will determine our future capabilities and the extended deterrent on which many Allies depend. At the end of the Cold War, US leadership took an important step to reduce the tensions and distrust that marked relations with the Soviet Union by significantly reducing its nuclear weapons stockpile. At the same time, it determined that maintenance of the existing nuclear weapons stockpile through the Science-based Stockpile Stewardship Program was its singular priority. US national security laboratories rose to the occasion, absent underground explosive testing, developing “Life Extension Programs” for the warheads and bombs in the stockpile. These systems, whose designs were based on nominal ten to twenty-year service lives, are now being extended to fifty years and beyond. Indeed, that is truly a testament to the scientific and engineering prowess in both research and development and production activities, having devised ways to retain them in the most safe, secure, and effective way possible.

But at the same time, we took steps, or chose inaction due to a failure to anticipate future challenges, that have significant repercussions for today, when the United States finds itself the only nuclear weapons state that is neither designing nor building new nuclear weapons.

Those future challenges are a stark reality as we witness how the production complex suffered. Presently, most facilities are over fifty years old. Over the past three decades, the complex was either simply maintained or many facilities were downsized or shuttered, leaving the NSE with no contingencies or back-up facilities should an operational pause or worse, accident occur at one of the eight NSE locations. Simply stated, these Manhattan-era facilities, which execute some of the most specialized missions on earth, were not provided the critical and necessary appropriations to support much needed modernization.

Modernizing the Stockpile and its Infrastructure

Full funding of and support for the NSE infrastructure is more important than ever. Modernizing it will support the existing stockpile and prepare for the design, development and fielding future, modern stockpile systems. This discussion should serve as a reminder that the NSE is not just an ordinary industrial complex, rather, each facility represents a one-of-a-kind operation. These facilities require 10-plus years to construct due to the operations undertaken in them, in order to protect the personnel, equipment and environment from potential accidents or incidents. Presently, the United States is operating every critical facility without any alternate location from which to continue work any operation be paused. This is not just a hypothetical scenario. A three-month pause at the Waste Isolation Pilot Plant, the facility which receives defense waste from NNSA, turned into a three-year outage due to a variety of circumstances. This resulting delay reverberated throughout the NSE causing work delays, schedule shifts and pauses because the single waste location was unavailable.

US policies over the past several decades have resulted in a complex whose critical operations are all, in fact, single points of failure. While I am not advocating that the US spend resources to massively reconstruct the nuclear weapons complex as it was thirty years ago, we should all agree there must be some resilience built into the enterprise. Yet here we are, knowing that the NSE is nearing a breaking point. The Obama Administration embraced that reality, supported a comprehensive modernization program and the Trump Administration recognized it was in more dire condition than was previously thought. Most recently, NNSA reported that the anticipated two-site plutonium pit production strategy will be delayed, unable to meet Congress' direction and DoD mission requirements to field the Minuteman III (MMIII) W78 replacement, Ground-based Strategic Deterrent (GBSD) system in 2030. This is a vivid reminder that several Administrations refused to commit to constructing a modern pit manufacturing facility over the past twenty years, replacing a critical production capability that was shuttered more than thirty years ago at the Rocky Flats Plant. The MMIII is a system which will be roughly 70 years old when it is finally retired, that is, if it remains on the present schedule. Complaints continue over the cost; however, every business case has borne out the reality that if it were life-extended, it would cost more than a new system, as there are elements within MMIII which are simply not replaceable. The GBSD has been designed to be adaptable and responsive to new technologies, incorporate common parts and respond quickly to emerging threats. Bottom line: it is more reliable than the 50-plus year old systems and easier to maintain.

Assuming the GBSD planned path forward occurs, it will be up to Los Alamos National Laboratory, a thirty-year-old facility and the only one of its kind which can handle strategic quantities of special nuclear material to operate flawlessly and suffer no minor delays to begin producing qualified pits in 2024 and in 2026, produce 30 pits annually and in perpetuity. At times it will be required to surge in order to achieve DoD requirements since the anticipated pit production facility is delayed. The likelihood to achieve such goals is questionable, not because of technical expertise but because historically, pauses and work-stoppages occurred on a routine basis, and we should anticipate that in the future. No doubt this scenario thrills the global disarmament crowd and our adversaries as we seem to knowingly inch closer toward unilateral and unintentional disarmament.

So often it has been said, “NNSA cannot complete projects on time and on budget”. That has certainly been the case in the past, but that was not solely DOE or NNSA’s responsibility. In every major construction project, Congress reduced funding at some point during construction, or the incumbent Administration altered its requirements, and in some instances the contractor’s costs increased, all of which led to delayed, failed or over-budget projects. However, when NNSA embraced its present major acquisition and project management principles, many of the internal issues were resolved and its recent successful track record of more than \$2 billion in major construction projects were completed on time and within budget. Nonetheless, the major driver of adequate and timely funding is outside their control.

If Congress were to provide dedicated funding to NNSA to complete its major construction projects, vice every year being at the mercy of the appropriations process, there could be significantly less likelihood of failure to complete major projects. A notable example is the Uranium Processing Facility (UPF) under construction at the Y12 Plant in Oak Ridge, TN. UPF is replacing the original 1940’s Manhattan Project facility that is still in use at Y12. Had the House appropriators reduced this ongoing construction project in the FY21 budget as proposed, much of the construction workforce, the machinists, pipefitters, welders, project managers and others supporting this massive \$6.5 billion effort would have been laid off and gone on to other worksites, never to return. The project schedule would have undoubtedly slipped, delaying the anticipated 2025 completion date, eventually costing the taxpayers more to complete it. However, thanks to the fully appropriated FY21 request, UPF is on schedule and budget at present, according to news reports.

Much of the modernization discussion focuses on the desperately needed infrastructure modernization programs. More importantly, however, much of it funds its workforce: the world-class scientists, engineers, technicians, and administrative support staff that support critical military application, arms control and disarmament and other vitally important national security programs that only the NSE can execute. Simply put, when budgets are decreased, the staff is cut. Ironically, at a time when the US is so focused, rightly so, on educating and hiring STEM qualified, “best and brightest” into our national security sector, there is an obvious disconnect.

Arms Control and Disarmament

The nuclear security enterprise is a key stakeholder in more than maintaining nuclear deterrent. Technical experts help advance US capabilities to monitor arms control treaties and detect foreign nuclear programs. Many of the same experts that support it also play vital roles in Arms Control and Disarmament, such as working with international partners to remove or eliminate vulnerable nuclear material and improve global nuclear security through exchanges and workshops. They are instrumental in preventing illicit nuclear materials trafficking, securing radioactive materials around the globe and supporting technical reviews of US export license applications. No other organization in the US Government has the knowledge or expertise to help strengthen the IAEA’s ability to detect and deter nuclear proliferation. To be sure, a vital element of the US deterrent strategy is Arms Control and Disarmament.

Path Forward

If a schedule is delayed or cost overruns occur, leaders should not throw up their hands and say cancel it? I strongly urge the Executive and Legislative branches continue to provide their unwavering support for the national security missions, doing everything to ensure success in the pursuit of global nuclear stability. Not for one moment should we be naïve to think that our adversaries as well as our Allies are not monitoring the decisions that the current Administration and Congress are making for our future. Indeed, for the past two plus years both sides of the aisle agreed with and committed to modernizing the US nuclear weapons program. I am cautiously optimistic that leadership will continue their commitments to authorizing and appropriating the resources necessary for the US to modernize and maintain our nuclear deterrent. Indications are that the Biden Administration, despite initial stories about attempts to delay or decrease funding for the nuclear deterrent, have voiced their support for the Triad and modernization efforts.

Nuclear weapons are horrific means of warfare. But they have kept the peace and have prevented WWII from occurring with robust policy and programs. I urge you to focus on the importance of our future national security. Not for today or tomorrow, but what we must maintain to ensure our freedoms are secure in the decades to come.