

**Statement of Dr. Paul J. Hommert
President and Director
Sandia National Laboratories**

**Committee on Armed Services
Subcommittee on Strategic Forces
United States Senate
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Introduction

Chairman Nelson, Ranking Member Sessions, and distinguished members of the Senate Armed Services Subcommittee on Strategic Forces, thank you for the opportunity to testify. I am Paul Hommert, President and Director of Sandia National Laboratories. Sandia is a multiprogram national security laboratory owned by the United States Government and operated by Sandia Corporation¹ for the National Nuclear Security Administration (NNSA).

Sandia is one of the three NNSA laboratories with responsibility for stockpile stewardship and annual assessment of the nation's nuclear weapons. Within the U.S. nuclear weapons enterprise, Sandia is uniquely responsible for the systems engineering and integration of the nuclear weapons in the stockpile and for the design, development, qualification, sustainment, and retirement of nonnuclear components of nuclear weapons. While nuclear weapons represent Sandia's core mission, the science, technology, and engineering capabilities required to support this mission position us to support other aspects of national security as well. Indeed, there is natural, increasingly significant synergy between our core mission and our broader national security work. This broader role involves research and development in nonproliferation, counterterrorism, energy security, defense, and homeland security.

My statement today will provide an update since my testimony of March 30, 2011, before this subcommittee. Starting from an overall perspective of the nuclear weapons program and the challenges facing us since the end of the Cold War, I will refer to the following major issues: (1) modernization programs with emphasis on the B61 Life Extension Program (LEP), (2) U.S. nuclear stockpile assessment, (3) status of the capability base needed to support our mission, (4) nonproliferation, (5) broader national security work, (6) workforce, and (7) governance. These issues will be viewed within the context of the Administration's request to Congress for the FY 2013 budget and of the appropriated FY 2012 budget.

Major Points of This Testimony

1. For the nuclear weapons enterprise to meet the B61 LEP scope and schedule as decided by the Nuclear Weapons Council in December 2011, it is essential that the funding levels in the President's *FY 2013 Budget Request to Congress* be authorized and appropriated. In addition,

¹ Sandia Corporation is a subsidiary of the Lockheed Martin Corporation under Department of Energy prime contract no. DE-AC04-94AL85000.

funding disruptions that could result from a FY 2013 continuing resolution would have an almost immediate impact on our ability to meet the FY 2019 first production unit schedule for the LEP. Therefore, if the schedule is to be met, plans for uninterrupted execution under a possible continuing resolution will be needed.

2. The schedule and scope of the B61 LEP relate to strong technical drivers, which are discussed in my September 2011 annual stockpile assessment letter. I recommend that members read the letter, and I welcome the opportunity to discuss it in an appropriate venue.
3. Beyond the B61 LEP, further planning is needed to determine the details of the modernization activities consistent with the 2010 *Nuclear Posture Review* framework. The planning update needs to reflect the current plutonium strategy, improved understanding of modernization costs, and technical state of the stockpile; it also needs to be consistent with overall fiscal constraints. We are supporting Department of Defense (DoD) and NNSA planning efforts currently underway.
4. I am encouraged by the recent discussion concerning governance of the NNSA laboratories. In my view, reinvigorating the government-owned and contractor-operated model, which implies government oversight at the strategic rather than transactional level, offers the potential for improvements in operational performance, contractor accountability, and cost-effectiveness at the laboratories, with attendant cost savings on the federal side.

Perspective of the Nuclear Weapons Program

It is my view that we have entered a new era for the U.S. nuclear deterrent. The nuclear weapons enterprise must address for the first time the following imperatives: modernizing the nuclear weapons stockpile, which depends critically on the use and continued advancement of the tools of stewardship, upgrading production infrastructure in a targeted manner, and maintaining the current stockpile through a modernization transition period. Such an environment creates funding demands not seen in recent decades, and it will require risk-based prioritization of the program, along with continued emphasis on strong program management and cost-effectiveness.

The current nuclear stockpile was largely developed, produced, and tested in the 1970s and 1980s, during the Cold War. It was the time of the arms race, as new nuclear systems were frequently being developed and fielded.

After the 1992 moratorium on underground testing, the nuclear weapons program went into its next phase, science-based stockpile stewardship. The advanced tools and deeper scientific understanding we developed in that period have been applied to our annual assessment of the stockpile, to stockpile maintenance activities such as replacement of limited-life components, and to the qualification of the W76-1 LEP. Science-based stockpile stewardship has been successful in generating the required scientific competencies and resources and attracting talented staff, but it was not accompanied by a broad-based effort to modernize the nuclear arsenal.

Now, some 20 years after the end of the Cold War, we have a stockpile that has become significantly smaller and older. Considering the average age (27 years) of the stockpile and our insights into the stockpile, we have clearly reached a point at which we must conduct full-scale engineering development and related production activities to modernize the nuclear arsenal. This work can be accomplished only by relying on the tools of stewardship and a revitalized, appropriately sized production capability. Let me restate that, in my view, the nuclear weapons enterprise has never before faced the combined need to modernize the stockpile, address production infrastructure, and further stewardship while sustaining major elements of the current stockpile.

The new era of the nuclear deterrent is guided by the strategic framework for U.S. nuclear weapons policy outlined in the 2010 *Nuclear Posture Review* and associated documents, such as the *FY 2012 Stockpile Stewardship and Management Plan*. However, in the past year, several factors have required further detailed planning to confidently establish the basis for sustaining and modernizing our nuclear deterrent. These factors include changes in the plutonium strategy, a deeper understanding of modernization costs, and the technical state of the stockpile. As we move forward, we must have a clear understanding and broad agreement about the vision for our stockpile 20 years from now. That vision must be robust in the face of current and future treaty obligations, evolving policy direction, stockpile technical realities, our infrastructure capabilities, and fiscal constraints. I believe such a vision is emerging, and we are actively supporting the DoD and NNSA as they work through this planning. Simultaneously, we are ensuring that Sandia is positioned to fulfill its responsibilities in support of the nation's nuclear deterrent. We are confident in our ability to do so.

Budget Overview

I am pleased to report that the appropriated FY 2012 budget will allow Sandia to both complete the 6.2A cost study for the B61 LEP and initiate full-scale engineering development at a pace consistent with a FY 2019 first production unit. In this context, I wish to extend my thanks to the key authorization and appropriation committees of Congress for having approved reprogramming of FY 2012 funds to achieve the full budget level required to complete our work. Without reprogramming, staffing would have been impacted at a number of nuclear weapons enterprise sites, including Sandia. In my view, FY 2013 is critical to sustaining modernization at the schedule and scope required by recent Nuclear Weapons Council decisions and the overall framework of the *Nuclear Posture Review*. Within this section, I will focus on key elements required for Sandia to execute its near- and long-term responsibilities and the manner in which the *FY 2013 Budget Request to Congress* reflects those requirements.

The B61 Life Extension Program

Sandia supports the Administration's *FY 2013 Budget Request to Congress*, which addresses funding for the B61 life extension. If fully appropriated, the FY 2013 site splits for Sandia provide the necessary budget growth that permits Sandia to meet program requirements. FY 2013 is crucial for the B61 as all component designs must be brought to a level that ensures successful system qualification on the path to FY 2019. We will complete detailed cost estimates for the required scope of the B61 program in June of this year; however, from work we completed in 2011, we know with high confidence that the level of funding included in the FY 2013 budget request is commensurate with the technology maturation and integration that must be conducted in FY 2013 in order to meet the required schedule.

Last year I testified that the B61 LEP would complete the cost estimation for the full-scope B61 LEP in FY 2011. Indeed, a detailed cost study was completed on schedule that met all the DoD and NNSA objective requirements. As it became clear that the cost of meeting all objective requirements with delivery in FY 2017 would exceed near-term resource availability, the B61 LEP system design team was directed to examine reduced-scope options, which meet a renegotiated set of threshold requirements that would represent acceptable risk for the weapon system going forward. This work led to the scope accepted by the Nuclear Weapons Council in December 2011, which reduces the cost of the program while ensuring a modernized B61 that meets military threshold requirements and addresses technical concerns expressed in my annual stockpile assessment letter from

September 2011. While I strongly support this scope, it is important to recognize that the new program does have increased risk resulting from the partial reuse of components and the loss of schedule margin. The schedule is now driven tightly by technical realities in the current system. The reuse of certain components further heightens the importance of a robust surveillance program.

I cannot emphasize enough the significance of timely funding authorization and appropriation. Consistent, predictable multiyear funding is vital for the FY 2019 B61-12 first production unit as it allows for the seamless progression of development, qualification, and production and for development of the necessary workforce. Plans for uninterrupted execution under a possible continuing resolution in FY 2013 will be needed if the schedule is to be met. And the success of the B61 LEP also requires the necessary support for the nuclear explosive package agency (Los Alamos National Laboratory) and the production complex.

The B61 LEP represents the largest nuclear weapon product development effort that the nuclear weapons complex has undertaken since the 1970s, an effort roughly three times that of the W76 Trident II SLBM warhead LEP, which is now in production. We recognize that the funding levels required at Sandia for this program are significant. Therefore, we are focused on efforts to reduce cost over the life of the program and to manage with full transparency and commitment to program rigor. Examples of our efforts include (1) actions we have taken to reduce, by over \$1 billion, labor costs associated with Laboratory-wide pension and medical care over the coming decade, (2) maximum leverage we have sought from other weapon development efforts and from the work we do for other federal agencies, and (3) consistent use of the tools of stewardship to reduce the costs of weapon qualification by comparison with historical efforts. Throughout this program, we will continue to seek further cost efficiencies. For example, the governance reform efforts being considered also afford the opportunity for further savings.

My last comment on the B61 program has to do with staffing. For this life extension, we have now approximately 30 product realization teams working to complete the Weapon Development and Cost Report and being prepared to initiate full-scale engineering design of components and subsystems upon entry into Phase 6.3. We aggressively staffed this program in FY 2011 to accomplish our objectives on the current schedule. In July 2010, we had a core of approximately 80 staff on the B61 project. By the end of FY 2011, we had staffed to more than 500. This group includes experienced weapon designers, individuals with design and program management experience from other large non-nuclear-weapon programs at Sandia, and many new professionals who represent the future intellectual base of our deterrent. It has been a challenge to assemble this team, but we have done so. Major instabilities in funding will make it difficult to keep this team stable and will lead to amplified schedule and cost impacts if we need to periodically reassemble the team.

Further Modernization Efforts

The B61 LEP is one in a series of programs with timelines extending to 2035 that have been documented in the *FY 2012 Stockpile Stewardship and Management Plan*. Among them are the W88 Alteration (ALT), the modernization of elements of our ballistic missile capabilities, and a possible weapon system associated with long-range stand-off delivery vehicles.

Sandia is pursuing work on the W88 ALT, which involves replacing the Arming, Fuzing, and Firing (AF&F) system and other nonnuclear components. The W88 ALT is scheduled for first production unit in December 2018, driven by the overall Navy program and schedule, components

reaching their end of life, the need for additional surveillance quantities, and alignment with the common fuze developed for the Air Force for the W87.

The *Nuclear Posture Review* recommended “initiating a study of LEP options for the W78 ICBM warhead, including the possibility of using the resulting warhead also on SLBMs to reduce the number of warhead types” (p. xiv). A larger vision of an interoperable set of ballistic warheads has matured since the release of the *Nuclear Posture Review* two years ago; this approach will support a more flexible, responsive, resilient stockpile for an uncertain future. Indeed, the Phase 6.1 concept assessment study for this modernization effort is nearing completion, and Sandia provided the warhead systems engineering and integration. We are fully leveraging the work we have done over the past several years on modular warhead architectures and adaptable nonnuclear components, including a recent study focused on a modular AF&F design.

By being adaptable to several weapon systems, our modular AF&F approach leads to significant cost savings. Using an envelope of the requirements for the W78, W88, and W87, our study concluded that the modular AF&F approach is technically feasible. While the modular AF&F cannot be identical in each weapon system because the nuclear explosive package is different, it can be designed to be adaptable, with many common components and common technologies. In each life extension, we will also make appropriate improvements in safety and security, which are enabled in part by miniaturization of electronics. Savings in weight and volume, at a premium in reentry systems, can be used for those additional safety and security features. The results of the W78 LEP Phase 6.1 concept assessment study are planned for briefing to the Nuclear Weapons Council Standing and Safety Committee later this year.

Stockpile Surveillance and Assessment

Stockpile surveillance and assessment play a crucial role in assuring the nuclear deterrent. Findings from conducting this program provide us with knowledge about the safety, security, and reliability of the stockpile, provide the technical basis for our annual stockpile assessment reported to the President of the United States through the annual assessment process, and inform decisions about required elements of the LEPs and their timelines.

Multiple drivers heighten the importance of the surveillance program. Among them are the following: an unprecedented age of the stockpile, which includes many subsystems that were not originally designed for extended life; smaller stockpile numbers; and for at least the next twenty years, surveillance of a stockpile that will contain simultaneously both our oldest weapons and life-extended weapons, which must be examined for possible birth defects and for further aging of reused components.

If fully appropriated, the FY 2013 site splits for Sandia provide the resources to meet our highest priority surveillance needs, which include conducting planned system tests—both flight and laboratory tests—but they limit the pace at which we can implement additional component tests and develop new diagnostics needed to improve our predictive capabilities. These predictive capabilities, which provide a better understanding of margins, uncertainties, and trends, are needed to ensure lead times necessary to respond to aging issues that would have the potential to reduce stockpile safety, security, or reliability. To minimize the risk to the stockpile, given the realities of the current fiscal environment, we are implementing a risk-based prioritization of our surveillance activities. Success in this important area will require continued strong budget support in the out-years.

Essential Infrastructure and Capabilities

Sandia's capabilities are essential to its full life cycle responsibilities for the stockpile: from exploratory concept definition to design, development, qualification, testing, and ultimately to ongoing stockpile surveillance and assessment. Let me point out a few examples.

The NNSA complex transformation plan designated Sandia as the Major Environmental Test Center of Excellence for the entire nuclear weapons program. Our facilities and equipment in this area are extensive: (1) twenty test facilities at Sandia; (2) the Tonopah Test Range in Nevada; and (3) the Weapon Evaluation Test Laboratory in Amarillo, Texas. We use environmental test capabilities to simulate the full range of mechanical, thermal, electrical, explosive, and radiation environments that nuclear weapons must withstand, including those associated with postulated accident scenarios. In addition to these experimental and test facilities, Sandia's high-performance computing capabilities are vital tools for our mission responsibilities in stockpile surveillance, certification, and qualification, and they have proved to be indispensable in our broader national security work.

I am very pleased that funding for the completion of the Test Capabilities Revitalization Phase 2 is included in the Administration's FY 2013 budget request for weapons activities. This funding will enable us to renovate our suite of mechanical environment test facilities, which are essential to support the design and qualification of the B61 life extension and subsequent life extensions.

The Administration's FY 2013 budget request also includes funding for the initial Tonopah Test Range upgrades in recognition of this facility being an essential mission requirement. However, sustained investment over multiple years is necessary to complete the required scope of the upgrades. Development flight tests will be conducted at the Tonopah Test Range for the B61 life extension.

I am equally pleased that the new budget request addresses the beginning of a recapitalization program for our silicon fabrication facility, the requirements for which I addressed in my testimony last year. I will restate that Sandia stewards for the nuclear weapons program, as well as for the Department of Energy's (DOE's) nonproliferation payloads, the microelectronics research and fabrication facility, where we design and fabricate an array of unique microelectronics, specialty optical components, and microelectromechanical system devices. The FY 2013 budget request includes funding for the first year of a 4-year program that will recapitalize the tooling and equipment in our silicon fabrication facility, much of which dates back about 15 years in an industry where technology changes almost every 2 years. For completion of the program, commitment to multiyear funding is required. Recapitalization will reduce the risk for delivering the B61 LEP and ensure production of the radiation-hardened components required by the W88 ALT and all future reentry system LEPs. As we go forward on modernization, our microelectronics fabrication facilities, which form the basis of our trusted foundry, will be critical to ensuring the integrity of our supply chain.

Nonproliferation

Sandia's portfolio of nonproliferation activities contains a full array of programs aimed at combating the proliferation of weapons of mass destruction. Working collaboratively with Los Alamos and Lawrence Livermore national laboratories and several other DOE laboratories, we are

- developing technologies to “convert, remove, and protect” nuclear and radiological materials that could be used in nuclear and radiological weapons,

- conducting international work for material protection,
- increasing effectiveness in large-scale field experimentation for nonproliferation test monitoring and arms control,
- ensuring that the on-orbit satellite program meets current requirements and adapts to future monitoring challenges,
- developing ground-based systems for more effective seismic monitoring;
- enabling other countries to develop nuclear security centers of excellence, and
- conducting international work in support of cooperative threat reduction programs.

In addition to working with other laboratories, we are engaging globally with international partners in more than 100 countries to reduce the threat of proliferation.

Our primary customers for this work are the NNSA, Department of State, and DoD. As a general comment, I will state that nonproliferation funding has shown stability at Sandia. The Administration's *FY 2013 Budget Request to Congress* continues that trend, with budget increases in certain areas and reductions in others. I am pleased to see balanced increases both in the technologies that respond to immediate national security needs and in the R&D necessary to sustain the flexibility to meet future national security requirements. In particular, the long lead time for satellite monitoring systems requires a sustained commitment to leading-edge R&D. This budget demonstrates that commitment and will enable the national labs to attract "the best and the brightest," who are eager to participate in exciting R&D projects with an enduring impact on U.S. and global security.

Synergy between Our Nuclear Weapons Mission and Broader National Security Work

Today's national security challenges are highly diverse. The NNSA laboratories are contributing solutions to the complex national security challenges. Indeed, as mentioned in the *FY 2011 Stockpile Stewardship and Management Plan Summary*, "while NNSA nuclear weapons activities are clearly focused on the strategic deterrence aspects of the NNSA mission, they also inform and support with critical capabilities other aspects of national security" (p. 7). In turn, to sustain and sharpen these competencies, Sandia relies on its broader national security work. The symbiotic relationship between the nuclear weapon mission and broader national security missions prevents insularity and creates a challenging, vigorous scientific and engineering environment that attracts and retains the new talent that we need. Such an environment is essential to succeed against the challenges we now face. The following example highlights the way in which this symbiotic relationship works.

Sandia has led the development of real-time processing and high performance-to-volume ratio technologies for synthetic aperture radar (SAR). Both technologies were made possible by our extensive design and development work for radars for nuclear weapon fuzing. The technologies have been leveraged and are currently used by the DoD. The extensive SAR work has sharpened our radar design competencies and kept Sandia aligned with advances in radar technology, such as radio-frequency integrated circuits. We are now applying these modern technologies to the design of the replacement radar for the B61 LEP and the W88 ALT.

This symbiotic relationship enables leveraging not only capabilities and technologies, but also engineering practices and processes. One of these areas with direct application across business areas and customers is cost management. A new cost management process was developed and successfully implemented during our work on fuze development for the U.S. Navy. Once work was delivered within the Navy's cost targets, many of the staff transitioned to work on the large satellite

programs, where additional processes were developed for cost and change control. Once again, after delivery of expected results, many of those same staff transitioned onto NNSA's current LEPs, including the B61 LEP. This synergistic rotation of staff across business areas and the lessons learned from a diverse set of customers and programs have created an environment of cost control and provided a set of cost management processes and practices that are now being implemented on NNSA's current programs. In a climate of fiscal responsibility, Sandia is finding innovative solutions to control cost.

Today it is no longer imaginable that the laboratories could deliver consistently on the commitments to the nuclear weapons program without the synergistic interagency work that attracts top talent, hones our skills, and provides stability through the nuclear weapons program cycles. Government commitment for the broad national security work of the laboratories is essential for the United States to ensure the preeminence of our nuclear weapons and to enable multidisciplinary technical solutions to other complex and high-risk national security challenges.

Workforce

Our talented people are our most fundamental capability. Given the scope and nature of our work, it is mandatory to continue attracting, retaining, and training a highly capable workforce committed to "exceptional service in the national interest." To do so, we must (1) ensure that our work is aligned with the national purpose; (2) create a climate of innovation and creativity that inspires our workforce; and (3) create a balanced work environment that is both responsive to the fiscal realities of our times and attractive to the talented staff we need in the future.

At Sandia, we have been proactive about hiring new staff into the weapons program, as experienced staff retired. The modernization program provides opportunities for the new technical staff to work closely with our experienced designers: from advanced concept development to component design and qualification, and ultimately to the production and fielding of nuclear weapon systems. Since the beginning of FY 2010, we have hired approximately 300 outstanding advanced-degree scientists and engineers directly into the weapons program as we execute modernization. Of these, well over one-half are essentially new graduates anxious to begin their careers working on the nation's nuclear deterrent. It is very important that we provide individuals such as these with an environment where they can undertake the multiyear learning it takes to technically steward the nation's nuclear stockpile now and into the future. Indeed, in the end, the nation's deterrent rests upon the strength of our people. We have a new generation of scientists and engineers prepared to take on that challenge now that we have entered the modernization era, but we must strive to provide the stability, focus, and national commitment that will enable their success.

As I testified last year before this subcommittee and as I stated above, fiscal realities have forced us to reduce costs by addressing the funding liabilities in our pension program, restructuring the healthcare benefits, and simplifying internal processes. All these actions were necessary, but they can go no further without compromising our ability to attract and retain.

Governance

Finally, I would like to state that I am much encouraged by the recent broad discussion around NNSA's oversight of the national security laboratories. Future improvements, as recommended by the National Academy of Sciences study "Observations on NNSA's Management and Oversight of the Nuclear Security Enterprise" will allow us to reinvest needed resources back into the mission.

A strategic oversight model is needed, which will bring to the forefront the need for such governance principles as mission clarity, commitment to using the robust construct of federally funded research and development centers, and commitment to the full use of the government-owned and contractor-operated model.

We understand that effective government oversight of our operations is essential. However, I am concerned that the magnitude and detailed level of our current oversight model can impede our efforts to continually improve our safety, security, environmental, and cost performance. It is also not evident that the oversight model under which the NNSA laboratories operate is comparable to that of other federally funded entities engaged in similar work. I encourage the Administration and Congress to consider improvements in this area.

Conclusions

As stated in the 2010 *Nuclear Posture Review*, “as long as nuclear weapons exist, the United States will maintain a safe, secure, and effective nuclear arsenal” (p. iii). Having embarked on the new era of the nuclear deterrent, we are guided by the strategic framework for U.S. nuclear weapons policy outlined in the 2010 *Nuclear Posture Review* and associated documents, such as the *FY 2012 Stockpile Stewardship and Management Plan*. However, in the past year, several factors have required further detailed planning to confidently establish the basis for sustaining and modernizing our nuclear deterrent. Among these factors are changes in the plutonium strategy, a deeper understanding of modernization costs, and the technical state of the stockpile. As we move forward, we must have a clear understanding and broad agreement about the vision for our stockpile 20 years into the future. I believe such a vision is emerging, and we are actively supporting the DoD and NNSA in their planning efforts. Simultaneously, we are ensuring that Sandia is positioned to fulfill its responsibilities in support of the nation’s nuclear deterrent. We are confident in our ability to do so.

Sandia supports the Administration’s *FY 2013 Budget Request to Congress*. Seamless progression of development, qualification, and production on the B61 LEP requires funds appropriated in a timely manner in FY 2013 and all subsequent years to meet the goal of a first production unit in FY 2019. Our commitment to the demanding and solemn responsibility for stockpile modernization, stewardship, and annual assessment is unwavering. It also comes with an obligation to be second to none in science and engineering and to steward the nation’s resources efficiently. Sandia is committed to fulfilling its service to the nation with excellence and judicious cost management. And the fact that the three national security laboratory directors were invited to speak before you today and answer your questions is a clear indication of the leadership role of Congress in authorizing a sound path forward for U.S. nuclear deterrence.

Exceptional service in the national interest



B I O G R A P H Y

Dr. Paul Hommert

*President and Laboratories Director
Sandia National Laboratories*

Dr. Paul Hommert is the director of Sandia National Laboratories and president of Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, which operates Sandia for the U.S. Department of Energy's National Nuclear Security Administration. Sandia has principal sites in Albuquerque, N.M., and Livermore, Calif., an annual budget of \$2.4 billion, and approximately 8,900 employees.

Dr. Hommert began his career with Sandia in 1976 and progressed from being technical staff to holding positions of increased responsibility in a broad range of programs and management assignments. He initially led programs supporting energy research, and from the mid to late 1990s, he was director of engineering sciences.

From 2000 to 2003, Dr. Hommert was the director of Research and Applied Science at the Atomic Weapons Establishment in the United Kingdom, where he led the science and engineering organization responsible for the United Kingdom's nuclear deterrent.

From 2003 to 2006, Dr. Hommert led the Applied Physics Division at Los Alamos National Laboratory. The division was responsible for nuclear weapon design and assessment, weapon performance code development, and weapon science support.

In 2006, Dr. Hommert returned to Sandia to become vice president of Sandia's California site, a position he held until 2009. In 2009, Dr. Hommert returned to Sandia's main site in Albuquerque, where he became executive vice president and deputy Laboratories director for the Nuclear Weapons Program.

Dr. Hommert earned a BS degree cum laude in mechanical engineering from Rensselaer Polytechnic Institute and MS and PhD degrees in mechanical engineering from Purdue University. He received an Outstanding Alumnus Award for Professional Excellence in 2003 from Purdue's School of Mechanical Engineering and a Distinguished Engineering Alumni Award in 2010 from Purdue's College of Engineering.



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