

**Testimony of Dr. Michael R. Anastasio
before the
House Armed Services Committee
Subcommittee on Strategic Forces**

February 16, 2012

Chairman Turner, Ranking Member Sanchez, and members of the Subcommittee – thank you for the opportunity to testify today. I am the former director of both Los Alamos (LANL) and Lawrence Livermore National Laboratory (LLNL), however these remarks reflect my personal views alone and do not represent LANL, LLNL, Los Alamos National Security, LLC, or any other organization.

During my career I have witnessed many historic events and dramatic changes in the Nuclear Security Enterprise – yet the laboratories’ dedication to mission and quality of science has remained. Recall that the National Nuclear Security Administration (NNSA), the Laboratories, Test Site, and Plants have been able to deliver the capabilities (people and tools) to maintain a safe, secure, effective stockpile since the inception of the Stockpile Stewardship Program in the mid-1990s, despite facing many challenges along the way. This remarkable achievement has directly enabled the nuclear policy articulated in the 2010 Nuclear Posture Review (NPR).

However, the significant budget challenges that we face today – a new “Age of Austerity” – pose significant near-term and long-term challenges to high quality science, engineering, and mission effectiveness in the Nuclear Security Enterprise. After discussing the challenges, I will end with some recommendations.

Context

First, let me raise the context in which the Nuclear Security Enterprise operates and the challenges which that presents.

I was heartened by the bipartisan commitment to the 2010 NPR and accompanying budget outline in the 1251 report. This largely remedied a lack of bipartisan agreement over many years on nuclear policy and provided an accompanying budget aligned with it. Without this consensus there are inevitably differing expectations of the Enterprise and an inability to set and carry out priorities consistently over time. Even with the NPR in place there are already changes in the making, amplified by the financial challenges faced by the country. This drives inefficiencies. Inconsistent priorities will arise and will be exacerbated when there is a gap between expectations and fiscal realities that is manifest already in President’s FY2013 budget.

Second, because of the large number of external entities peering into NNSA and its inner workings, with disproportionate attention relative to that seen in other parts of the government, a significant risk aversion has developed within the bureaucracy at NNSA.

This risk aversion has manifested itself in a growing focus on compliance at the expense of delivering the mission.

Oversight and Management

My experience at LANL is instructive for me in considering the Enterprise-wide response to the “Age of Austerity.” We were able to increase the effectiveness of the Laboratory in delivering on our missions over the last five years while absorbing new costs of approximately \$225M per year and simultaneously confronting a new contract structure, security and safety concerns, and an aging infrastructure. Because of the new contract, LANL’s costs rose by approximately \$150M per year overnight due to substantial increases in available fee, in gross receipts tax to the state of New Mexico and in a pay-as-you-go defined contribution pension system for about 1/3 of the employees. Subsequently, the financial crisis of 2008 drove the defined benefit pension into an underfunded status requiring approximately \$75M per year Laboratory contribution to the pension. In total, new annual costs rose by over 10% of the LANL’s budget.

We accomplished this first by right sizing our workforce to the anticipated budget through constrained hiring, aligning the Laboratory to a set of overall goals, and systematically driving down indirect costs in all areas of the Laboratory.

However, it will be difficult for my successor to make further efficiency and effectiveness gains due to the growth in unfunded requirements and from transactional oversight. For example, the NNSA site office has grown from approximately 100 employees to over 130 now. Their focus is oversight of safety, security, and business operations where the inexorable trend is toward ever-deeper involvement and direction of how specific activities are executed rather than evaluating whether the outcomes meet expectations.

At the same time, new requirements and reinterpretations are promulgated continuously from NNSA and/or the DNFSB to drive down operational risks and demand more and more paperwork to demonstrate compliance. Usually those who establish and interpret the requirements do not have direct responsibilities for program. And those that are responsible do not fully understand what goes on in the field.

For a facility like LANL with many high security and high hazard activities, safety and security are paramount. However, a hallmark of an efficient and effective organization is that it achieves a balance across all the competing demands from mission accomplishment to operational excellence. Finding and achieving that balance needs strengthening across the Enterprise.

Efforts at the site level to achieve the optimal balance are also inhibited by restricted flexibility to manage across these competing demands. Priorities can change in the 18 months between budget formulation and the start of the new fiscal year. Our ability to reallocate funding within our overall budget to meet changed priorities is restricted by the

number of congressionally directed control levels and the way they are managed at DOE/NNSA headquarters.

Health of Science / Engineering

Unless dramatic progress can be made on these issues the inevitable response to financial pressures will be to modify the program to accommodate the “Age of Austerity.” The expectations established in the NPR will then not be met. If past history is a guide these program impacts will fall disproportionately on the science and engineering base. This is the long-term challenge we face.

An aversion to risk and a deterioration of trust, increases in transactional oversight and in unfunded requirements, combined with an uncertain policy direction and unstable budget outlook hurt the ability of the Nuclear Security Enterprise to attract, develop, and retain the best technical staff available. It is very difficult to convince top quality technical staff to join an organization where they are told how to do their work and left wondering if there is going to be an opportunity to discover and innovate. This has already resulted in the loss of some of the best mid-career scientists from the Laboratories.

The science and engineering base of the Laboratories enables the future ability of the Enterprise to carry out the mission, especially without nuclear testing for integral validation. A deepened and vital science and engineering base that is advancing with the state of the art was a key premise of the Stockpile Stewardship Program and has been responsible for our success over the last two decades. Failure to remedy the oversight / requirements drive and to avoid the squeeze on science can have irreparable harm – once we lose the capabilities we may not be able to recover them.

Recommendations

Let me end with some modest recommendations that will help put us on a better path:

- Reduce indirect costs of the Enterprise through oversight of outcomes rather than oversight of activities. The existing accountability mechanisms available in the current contracts are more than adequate.
- Accompany this with cuts in budget / people engaged in oversight and indirect activities starting with the federal workforce.
- Strengthen the balance across mission delivery and operations. New requirements or interpretations of existing ones (by internal or external organizations) must be coupled with a cost-benefit analysis.
- Reduce the number of Congressional budget control levels to increase flexibility in execution at the NNSA sites.

Again, thank you for the opportunity to testify today and I look forward to your questions.