

TESTIMONY
Linton Brooks, Administrator
National Nuclear Security Administration
U.S. Department of Energy
Before the
Defense Nuclear Facilities Safety Board

October 21, 2003

Mr. Chairman and Members of the Defense Nuclear Facilities Safety Board,

Thank you for this opportunity to provide testimony on the National Nuclear Security Administration's (NNSA) current practices for oversight and management of the contracts and contractors that accomplish the mission assigned to NNSA under the Atomic Energy Act of 1954. We understand that the Board particularly wants to focus on the impact NNSA's reengineering may have on assuring adequate protection of the health and safety of the public and workers at NNSA's defense nuclear facilities.

I fully understand my personal responsibility for assuring the safety of NNSA's operations. I have over four decades of experience in national security, much of it associated with nuclear weapons and nuclear propulsion. I have carried weapons on several ships, studied their technology and examined their effects. I have commanded a nuclear submarine during the complex safety environment of a refueling overhaul. From all of this I have learned the utter importance of safety and security. The organizational changes we are implementing are designed to improve the Federal oversight and management of our contractors, which is essential to accomplishing our mission safely and securely. NNSA's reengineering efforts have been aimed at improving the effectiveness and efficiency of these critical Federal activities by:

- Clarifying roles and responsibilities;
- Integrating and balancing program elements;
- Streamlining operations and oversight by simplifying requirements; and
- Treating individuals with dignity and respect.

These objectives were adopted to resolve issues identified in various reports and studies of DOE's nuclear weapons program over the past decade. In short, we believe reengineering is solving critical problems involving confused accountability, stovepiping, and pervasive micromanagement. At the same time, as we implement these changes, I am committed to ensuring no reduction in the effectiveness of our safety oversight.

REENGINEERING AND INTEGRATED SAFETY MANAGEMENT

NNSA's reengineering activities have been carried out employing and implementing the core principles of Integrated Safety Management (ISM). Here are examples involving four of the seven ISM core principles:

Line Management Responsibility for Safety. The first ISM guiding principle is that line management must be responsible for the protection of the public, the workers, and the environment. A key success of reengineering has been clearly defining line management responsibilities through the elimination of a layer of management and the consolidation of responsibility and authority in the Site Office Manager. These changes have been codified with the completion of NNSA's recently issued Functions, Responsibilities and Authorities Manual (FRAM).

Clear Roles and Responsibilities. Through reengineering, clear and unambiguous lines of authority and responsibility have been established at all organizational levels within the Department and its contractors. In particular, we have clarified and strengthened the authority of the Site Office Managers by eliminating Operations Offices, thus avoiding the diffusion of responsibility characteristic of the past.

Competence Commensurate with Responsibilities. NNSA has placed primary responsibility for oversight in the hands of its Site Office Managers who have first-hand knowledge of our contractor's operations. These managers were chosen for their experience and ability, and have been given responsibility for defining the organizations and hiring the staff required to accomplish their responsibilities. Additional technical expertise is also available to the Site Office Managers through the newly established Service Center.

Balanced Priorities. Through establishing Site Office Managers as the "risk acceptance officials for NNSA," we assure that priorities are integrated and balanced, and that programmatic objectives are not given precedence over safety or security. The Site Office Managers' direct reporting relationship to my office helps assure an appropriate balance between safety, security and programmatic operations.

DNFSB CONCERNS

I understand that the Board's concerns about reengineering can be grouped into three broad areas: (1) NNSA Site Offices are not adequately staffed or organized; (2) NNSA Headquarters does not have adequate provisions for internal oversight, support or validation of Site Office capabilities; and (3) NNSA contractors do not yet have the self-assessment processes necessary to achieve the goals outlined for contractor assurance systems.

We are well aware of these concerns, but I believe that our actions are addressing each of these issues. In particular, I want to stress that NNSA has taken no action during the implementation of the NNSA of the Future that reduces our focus on nuclear safety. Indeed, nuclear safety requirements were explicitly exempted from our efforts to develop a governance pilot at Sandia National Laboratories. Reengineering has not reduced the vigilance of our nuclear safety oversight, which is a daily responsibility and continues to be performed transaction by transaction.

NNSA has chosen to implement both a streamlining of management and a change in our approach to contractor assurance simultaneously and over a relatively short time. I believe that the benefits in improved efficiency and effectiveness justify this decision. We will, however, carefully monitor our progress to ensure that we are not taking on more than we can safely implement. For example, I recently approved a one-year delay in making our Federal workforce ISO 9001 compliant because we concluded that we were trying to do too many things at once.

SITE OFFICE STAFFING AND ORGANIZATION

Our decisions to make Site Managers contracting officers and the “risk acceptance officials” for NNSA has clarified authority and responsibility for operational issues at our sites and motivated our managers to staff and organize these offices appropriately. With the elimination of an intermediate layer of management, Site Managers report directly to me through the Principal Deputy Administrator. As the risk acceptance official for NNSA, a Site Office Manager cannot be overruled by a Headquarters Program Manager on a decision regarding safety. If a Program Manager and a Site Office Manager cannot agree, the matter must be brought to my attention for resolution, working through the NNSA Chief Operating Officer, who is assuming the functions of a Principal Deputy pending the President’s nomination of such a Deputy. This clarity in responsibility and authority should improve performance in all areas, including safety.

We required each NNSA office to develop a managed staffing plan based on assigned functions and now we are providing resources to assist in redeploying the necessary staff talent to these offices based on those staffing plans. We are addressing the need for improved operating procedures by developing business systems with the backbone to assure appropriate Federal oversight performance. I believe that our approach, which emphasizes centralizing responsibility and authority in the hands of NNSA Site Managers, is the most effective way to systematically regulate our contractors. We are continuing to fine-tune the division of responsibilities and the adequacy of our staffing plans. We will not allow arbitrary caps to compromise safety.

During reengineering, great care is being given to assuring that Site Offices have sufficient technical talent to carry out their new responsibilities. Based on the Matrix of Functions and Activities by Location, I issued a memorandum dated January 2, 2003, *Clarification of Roles and Responsibilities in Critical Functional Areas*, identifying key Site Office responsibilities. From November 2002, through the approval of Managed Staffing Plans for the Site Offices on July 23, 2003, Site Office Managers and Headquarters officials have been in an active dialogue regarding Site Office technical and other requirements. As a result of this dialogue I have authorized an increase over our initial December 2002 levels of 40 Site Office positions. While not all of these have been technical positions, the increases demonstrate our willingness to modify plans as necessary in order to ensure we provide adequate Site Office staffing. Each of the Site Office Managers has personally assured me that their Managed Staffing Plan contains sufficient technical staff to perform their assigned safety responsibilities.

I understand that the Board has been particularly concerned about NNSA's restructuring of the Facility Representative program to focus our technical resources on high risk facilities. This program is an essential element of our nuclear safety oversight activities. As noted before, NNSA has taken no action during implementation of the NNSA of the Future that reduces our focus on nuclear safety. Indeed, the reengineered Facility Representative program focuses our oversight on high-risk facilities. Our view is that by placing Federal staff in low risk or standard industrial facilities, we diluted the program's effectiveness and reduced our contractors' sense of responsibility for worker safety in these facilities. We have made it a high priority to fully staff our Facility Representative program based on our revised assessment of requirements. We believe our approach provides the right level of on-site oversight of risks to the health and safety of the public and workers resulting from contractor activities in NNSA's defense nuclear facilities.

The Site Offices' needs for technical assistance has been augmented by redeploying technical resources to the NNSA Service Center. The Service Center will assist by meeting peak demand and specialized expertise requirements beyond day-to-day technical staffing needs. Service Level Agreements are already in place between the Site Offices and the Service Center. We recognize, however, that redeploying staff to Albuquerque is disruptive and we will be closely monitoring the level and skill mix of our technical staffing over the next year. I have already approved exceptions to our outside hiring moratorium, and will not hesitate to approve other requests if specific staffing gaps are identified that cannot be met by redeploying current NNSA staff.

In addition to the quantity of our technical staff, we are concerned about their qualifications. For this reason, I am requesting that each of my managers assure that their technical staff be on schedule by the end of this calendar year to complete appropriate technical qualifications, and that all delinquent commitments are completed. Of our staff at NNSA's eight Site Offices in the DOE Technical Qualification Program (TQP), 70 percent is fully qualified, and five of our sites have met the threshold established by the Federal Technical Capability Panel of 75 percent of staff fully qualified. I have directed that the three sites that do not currently meet this threshold implement an aggressive program to do so and have assigned the NNSA Chief Operating Officer to oversee this process.

Finally, like Naval Reactors and other world-class technical organizations, NNSA is committed to hiring, developing and retaining an excellent technical staff. We are evaluating ways of expanding our intern programs and we will again be asking the Congress to grant NNSA excepted service personnel authority similar to that which the Safety Board has used to build its technical staff. Consistent with our focus on the importance of the Site Offices, we have concentrated our existing excepted service personnel authority in those offices.

NNSA OVERSIGHT MODEL

DOE has developed a draft oversight policy (P 226.1) containing three fundamental elements:

- A critical and honest self-assessment by Federal and contractor organizations;
- Line management reviews, such as inspections, surveillances, surveys, and walkthroughs, that test systems and the validity of the self-assessment; and
- Independent oversight reviews.

NNSA's oversight model builds on DOE's draft policy: In the first instance, we rely on Site Offices to oversee and regulate the activities of our contractors. Headquarters assures effective Site Office oversight by setting clear expectations, requiring rigorous self-assessment, and monitoring effectiveness. As an added level of assurance, DOE's Office of Independent Oversight and Performance Assurance (OA) will check our system as a whole.

- Setting clear expectations – NNSA leadership sets clear expectations by defining the attributes of Site Office oversight and regulation. We are doing this through establishing our Line Oversight/Contractor Assurance Systems (LO/CAS) process. The line-responsible Headquarters organization, led by Dr. Everet Beckner, Deputy Administrator for Defense Programs (NA-10), sets operational expectations and monitors performance in accordance with the provisions of the NNSA FRAM.
- Site Office self-assessment – NNSA is defining the attributes of a rigorous self-assessment program. I have tasked my senior ES&H advisor, Jim Mangeno, with identifying the key attributes of a rigorous self-assessment system in consultation with Site Office managers. Once identified, we will ask each Site to submit its self-assessment program and annual operational plans.
- NNSA Headquarters monitoring – At a minimum, Dr. Beckner's organization will review plans and results, monitor metrics and other reporting, and collect insights from participation in Site Office reviews. Headquarters can initiate an audit or inspection of a particular office for cause or may participate in audits or inspections conducted by the Site Office. ES&H performance will be an integral part of periodic program reviews with the Administrator. Last year, as part of our streamlining efforts, I eliminated routine Headquarters on-site reviews. I believe that this was a correct decision and consistent with placing greater responsibility on Site Offices. Nonetheless, we have this policy under continuous review and I will not hesitate to reinstitute Headquarters reviews if necessary.
- Independent oversight – OA checks our oversight of the entire enterprise by conducting independent appraisals of the performance of site contractors and the effectiveness of DOE/NNSA line management. Appraisals are conducted routinely (normally on a two year cycle) and provide in-depth insight as to the

effectiveness of Site Office oversight/assessment programs. OA reviews Site Office oversight and self-assessment plans, procedures and schedules as part of their scheduled review, and provides me with their findings.

As indicated, implementation of our reengineered oversight model is not complete, but each site will have a written line oversight plan and each operating contractor will have a written assurance system acceptable to NNSA. Both sites and contractors will be fully staffed to carry out their LO/CAS responsibilities.

CONTRACTOR ASSURANCE SYSTEMS

Like all of the Department of Energy, NNSA cannot abrogate its responsibility for protecting the health and safety of the public and workers at NNSA's defense nuclear facilities to our contractors. I have no intention of doing so. I believe, however, that by developing effective contractor assurance systems, we can improve oversight and safety. I would urge the Board to await the results of our efforts to implement our proposed Line Oversight and Contractor Assurance Systems policy (LO/CAS). Under the leadership of my Chief Operating Officer, Tyler Przybylek and a former Naval Reactors official, Jim Mangeno, NNSA is working with Site Office and contractor managers to establish effective mechanisms for assuring performance based on best practices.

NNSA's proposed Line Oversight and Contractor Assurance Systems policy builds on Integrated Safety Management and Integrated Safeguards and Security Management and evolves these to the broader concept of Integrated Management. The policy complements (in the ES&H area) DOE Policy 450.5. NNSA Line Oversight and Contractor Assurance Systems will be based on the following principles:

- In general, NNSA determines the "what" and the contractor determines the "how," in the context of mission and function performance, compliance, and good business practice.
- A relationship between contractor performance and NNSA oversight is developed where, depending, in part on the level of risk associated with a contractor's work, NNSA oversight will be based on the Contractor Assurance System quality and completeness and an acceptable level of contractor performance.
- The degree of NNSA oversight is driven by NNSA's expected outcome of increased contractor accountability and by our determination of what constitutes an acceptable level of contractor performance.
- A risk-based graded approach is developed to base NNSA Line Oversight and contractor assurance resources on those areas where more rigorous performance assessment and improvement are required.
- Contractor Assurance Systems will include self-assessments, internal auditing, oversight by boards and external panels, third-party certifications, and direct engagement between oversight bodies and NNSA's leadership.
- In complying with this policy, a transition period during which both the contractors and NNSA are adjusting to the approach embodied in this policy is expected. This will allow building of trust and confidence on the part of both

parties. We will not reduce Federal oversight until contractor assurance systems are formally approved.

Over the past few weeks, our contractors and Site Offices have been presenting their proposed approaches for implementing this policy to Headquarters officials. While much effort lies ahead to achieve full implementation of this new approach, we believe that it will improve the safety and security of NNSA's mission activities. At the same time, we do not intend to back away from the current level of oversight at any Site until we can verify that a contractor has implemented the necessary systems to assure performance.

NASA SPACE SHUTTLE ACCIDENT

Because we believe it is important to learn from the mistakes of others, NNSA is reviewing our oversight approach in light of the lessons learned from the Space Shuttle Columbia Accident Investigation Board (CAIB). One of the fundamental issues identified by the CAIB was the failure of NASA senior management to listen carefully and act on concerns raised by technical experts. NNSA is firmly committed to avoiding this failure. Thus I welcome the opportunity to continue a dialogue with the Board on these important issues.

As you know, the Columbia investigation identified organizational causes as a key element in the failure of NASA to identify and evaluate critical safety issues. Because of the similarities between NNSA's nuclear defense mission and NASA's space mission (highly technical work and reliance on contractors to perform the mission), I have chartered a review of the Columbia accident investigation report to identify lessons learned from the NASA experience that may apply to NNSA. Brigadier General Ronald Haeckel, Principal Assistant Deputy Administrator for Defense Programs, chairs this NNSA team. The team has been chartered to assess the following questions in light of the CAIB report:

1. Is NNSA's management and safety culture appropriate for an organization managing high technology, high-risk activities?
2. Are there issues raised by the CAIB report that should be considered as we implement NNSA's new organizational model?
3. Will the re-engineered NNSA provide for the necessary technical capability for properly executing NNSA's safety management and regulatory responsibilities?
4. What changes would you recommend that NNSA adopt in light of the lessons learned by NASA?

General Haeckel's team has provided me with their initial assessment of the NASA report. As a result of their initial review and discussions, the team is focusing on five key issues from the CAIB report:

- An erosion of technical staffing in NNSA, similar to that experienced by NASA, particularly in the areas of centralized support for the Site Offices located in the Service Center and Headquarters oversight.
- The recommendation that NASA establish an independent safety organization with direct authority for operations and budget. While this recommendation appears inconsistent with the core ISM principle of line management responsibility, the team is considering how to establish appropriate checks and balances in the oversight process.
- Issues related to organizational culture including over-reliance on past success as an indicator of future performance, acceptance of recurring problems as “normal,” resistance to seeking or accepting outside opinions, and less than full consideration of minority opinions.
- The roles and responsibilities of our contractors in assuring the safety of operations that can have significant public health and safety consequences.
- The impact of budget constraints and schedule pressures on safety assurance.

Additional issues may arise or change in importance, as the team continues its evaluation. Their effort will be assisted by independent evaluations of the report by each NNSA Site Office and by many of our contractors. The team’s final report will be helpful in steering the process of implementing the NNSA of the Future, and for testing our assumptions about how to most effectively assure our safety responsibility. This report should be delivered by the middle of January 2004, and will, of course, be made available to the Board. I plan to take immediate action on any appropriate recommendations contained in the report.

CONCLUSION

All of NNSA is committed to assuring adequate protection of the health and safety of the public and workers at NNSA’s defense nuclear facilities. Maintaining that commitment as we restructure NNSA is one of my most important responsibilities. We are convinced that the changes we are implementing will improve performance and enhance safety. At the same time, I know that implementation of even the best plan does not always produce the intended results. Therefore we are committed to implementing the new model in a deliberate and professional manner. We will continue to monitor our progress and adjust our approach as we strive to improve both effectiveness and efficiency in creating the NNSA of the Future.