

## **Testimony**

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### **Introduction**

Mr. Chairman and Members of the Defense Nuclear Facilities Safety Board, thank you for the opportunity to provide testimony on the Livermore Site Office's (LSO) oversight of the Lawrence Livermore National Laboratory (LLNL). I have been the Livermore Site Office Manager since December 19, 2002, and as the Site Manager, I clearly understand and accept my responsibility for assuring safe operations at LLNL. I am committed to a technically sound and effective oversight program to ensure the protection of the workers, the public, and the environment.

Today, I will describe LSO's mission, structure, and staffing, my role as the risk acceptor for National Nuclear Security Administration (NNSA), line oversight and self assessment programs. Before I go into detail about these areas, let me begin by saying that I believe that safety and security are the two most important roles of a site manager. The safe and secure operation of LLNL is my responsibility. Accomplishing this means that LLNL will have long term viability to conduct outstanding science, and the public can be confident that NNSA is fulfilling its oversight responsibilities. I take this responsibility very seriously.

As a management professional, I rely on the technical professionals within LSO to provide me with technical reviews, analysis and recommendations. To perform my assigned responsibilities as the "risk acceptor" for LLNL, I need to assure myself that 1) LSO is organized correctly, 2) that I have qualified personnel in nuclear safety, Environment Safety and Health (ES&H) subject areas, and facility representatives (FR) and 3) that these technical personnel can provide me with sound advice and well defined recommendations.

### **LSO Mission and Structure**

Ambassador Brooks approved the NNSA realignment on December 19, 2002. He defined the mission of LSO to provide operations oversight and contract administration for LLNL activities, acting as the Agency's risk acceptor for the site. The Site Office is

responsible for: 1) the safe and secure operation of facilities under the purview of NNSA; 2) supporting NNSA programs to ensure their success; and 3) ensuring the long-term viability of the site to support NNSA programs and projects.

To fulfill this mission, I have organized LSO around two Deputy Managers, one for National Security Operations and one for Safety and Environmental Programs. These positions have been announced and I am in the process of making the final selections. The Deputy Manager for National Security Operations is responsible for the oversight, implementation, and administration of all defense related program activities, safeguards and security, institutional site management, planning, business management, and assessment of contractor performance. Three organizations report to this Deputy: the National Security Implementation Division, the Safeguards and Security Division and the Business Management Division.

The Technical Deputy Manager for Safety and Environmental Programs provides technical direction and operational oversight of nuclear safety, the implementation of Integrated Safety Management (ISM), institutional ES&H, the Facility Representative (FR) program, and environmental management. This Technical Deputy is responsible to ensure systems are in place to establish, verify, and maintain the authorization basis requirements. Three organizations report to this Technical Deputy: the Nuclear Safety Team, the Livermore Safety and Operations Division, and the Environmental Stewardship Division. Specifically reporting to this Technical Deputy are the Senior Safety Advisor and Senior Nuclear Safety Advisor, who is also the Nuclear Safety Team Lead.

I rely on these Deputies and others to advise me on the technical decisions that I need to make. When making these decisions, I must understand the risk that I am accepting and the bases on which that risk has been defined. There will be times when my staff will present differing opinions to me, but the final decision is mine and I am held accountable for that decision by NNSA management. In making these decisions I do not hesitate to consult technical expertise outside of LSO in order to gain further understanding of the risk I am being asked to accept.

One of the keys to LSO's structure for performing oversight are the Operations Teams. I rely on the Operations Team Leads to be the line manager responsible for oversight of programmatic operations, ES&H and safeguard and security for a facility, group of facilities or of a program. The Team Leader is tasked with integrating resources to accomplish the required management and oversight functions and responsibilities. In addition, I rely on the Subject Matter Experts (SMEs) to oversee their assigned ES&H functional area across LLNL organizations, e.g. criticality safety. This complementary approach allows programmatic operations, ES&H, safeguard and security oversight data and resources to be shared among managers responsible for facility and institutional oversight.

I would like to stress that I have an open door policy. Any employee can bring any concern they have directly to me. When I'm briefed in regards to the result of an

assessment, operational readiness review, safety analysis review, or other ES&H issues, the entire team performing the review is invited to the briefing and I encourage the team members to discuss their perspectives. I am committed to understanding differing professional opinions and utilizing all my available resources to make sound management decisions.

## **Staffing**

On September 26, 2002 Mike Hooper, the former Site Manager, testified before you about the plans to strengthen the technical staff at LSO. Those steps, which included moving SMEs in fire protection, quality assurance, seismic safety, and radiation safety to LSO, as well as hiring a second senior safety advisor and a system engineer, have been successfully completed. These moves were included in my approved staffing plan of 90 NNSA full time equivalents (FTEs), and have increased the NNSA staff dedicated to ES&H oversight at the site office from 29 in 2002 to 35 currently. In addition to the 90 NNSA positions covered by my staffing plan, I have 15 Environmental Management (EM) positions, 2 of which are dedicated to ES&H. As I talk about specific staffing numbers, I will include both the NNSA and EM positions.

I currently have five FR positions stationed in nuclear facilities and three FRs stationed in non-nuclear facilities, e.g. explosive facilities. This is down from 10 as I recently lost two FRs who were assigned to non-nuclear facilities to promotions elsewhere within DOE. I am currently in the process of backfilling these FR positions.

I am also advertising for a Health Physicist. The SME who had been providing radiation safety oversight was reassigned full time to the Radiological Assistance Program. Our radiation safety program oversight has suffered as a result. In the interim, I have asked the NNSA Service Center for support in health physics. This is an area that will require my continued attention until we are adequately staffed.

I have negotiated an agreement that defines the ES&H support I expect to need from the Service Center. Thus I have the ES&H resources necessary to implement my ES&H responsibilities. However, as requirements change, I have an open channel to the Service Center to get one of a kind support, and/or to Ambassador Brooks to seek adjustments to my staffing plan.

I currently have 32 staff members whose duties and responsibilities require providing assistance, guidance, direction, oversight, or evaluation of contractor activities that could impact the safe operation of a defense nuclear facility. These individuals are part of the LSO Technical Qualification Program (TQP). In 2001, we embarked on a process to completely revamp our TQP, to add rigor, consistency, and formality to the program. We had found that our existing program did not perform to our expectations. Our new program is performance based and has removed all self certification aspects. We require all TQP participants (except Facility Reps) to requalify under the new, more rigorous program. In 2003, we completed the phased roll out of the new program and have

concentrated on having participants complete the program. As of today, 53% of the LSO TQP participants are qualified under the new program.

### **LSO's Risk Acceptance Role**

As noted in the LSO mission statement, I have been designated as the NNSA risk acceptance official for LLNL. I am responsible for ensuring that operations conducted at LLNL are done in a manner that protects the public and the employees. Any disagreement between Dr. Beckner and myself with respect to safety, is brought to the attention of Linton Brooks, NNSA Administrator, for resolution.

This authority is documented in the NNSA Functions, Responsibilities, and Authorities Manual (FRAM) and is carried out through my role as Contracting Officer, the National Environmental Policy Act (NEPA) process, approval of nuclear and non-nuclear facility safety basis documents, approval of the startup of facilities, and defining the level of federal oversight necessary to ensure contract performance. I would like to discuss a few of these activities in more detail.

As the Contracting Officer for LLNL, I am responsible for integrating direction to the contractor. I have appointed Contracting Officer Representatives (CORs) from the site office and at headquarters to assist me in contract administration of the site's programs and projects. The Headquarters CORs are appointed by program or project and are responsible for providing the program direction, developing scopes of work, and performing oversight of the contractor within the guidelines of their appointments. The Site Office CORs provide technical direction within the defined scope of work and perform oversight of the contractor. Ultimately, I am solely responsible for accepting risk for NNSA.

I am responsible for negotiating contract requirements including those governing LLNL's Integrated Safety Management System and the specific ES&H standards with which I expect LLNL to comply. The Department of Energy (DOE)-approved Work Smart Standards (WSS) process is used to define these standards and there is an active change control process that governs changes to both the LLNL ISM system and the WSS set; however, the final approval of these changes lies with me.

LLNL is contractually required to obtain DOE approval for the start or restart of operations in nuclear facilities. For NNSA facilities, I have been delegated this responsibility. I appoint the team leaders and approve the plan (which defines the criteria) for these reviews. Based on the review team's report to me, I make the final determination if readiness has been demonstrated.

Lastly, I accept risk by defining the oversight program for ensuring that LLNL complies with the NEPA and safety basis documents that I approve, as well as the contractual requirements I have discussed. Let me discuss this Oversight Program in detail and its components.

## **LSO Line Oversight Model**

It is LSO's philosophy that our oversight be constructive and value added. We focus on those metrics, observations, assessments, validations and certifications that assure major elements of risk are being controlled to ensure mission success. We consider all existing information from LLNL internal assurance systems as well as external reviews to ensure LSO oversight is integrated in a cost effective manner.

We separate our oversight activities into 5 components;

- LSO Operational Awareness Activities
- Audits and Reviews
- Reporting Systems Monitoring
- Contractor Performance Measures and Metrics
- LLNL Contractor Assurance System

Maintaining a sound communication link with Headquarters is a key attribute of our model. I would like to discuss each of these in more detail.

- **LSO Operational Awareness Activities**

Operational awareness is defined by LSO as those day to day activities which enable LSO to determine how well the contractor is performing to meet the requirements of the contract. Operational Awareness activities include walkthroughs, surveillances, validation of corrective actions, document reviews, and meetings with contractor staff. The focus of these activities is on the actual observation of work. These activities, including walkthroughs by myself and my senior managers, give me feedback as to what is actually happening on the "shop" floor. Operational awareness activities are governed by LSO Standard Operating Procedures. Goals and minimum requirements regarding operational awareness activities are issued annually for each staff member with ES&H responsibilities, establishing their performance expectations in terms of getting out into the facilities. ES&H Operational Awareness activities are documented, tracked and trended. Findings are shared with the contractor and followed to closure when necessary.

- **Reviews and Audits**

Assessments include reviews conducted by groups external to LSO, as well as those conducted by LSO. External reviews at facilities are performed by various agencies including EPA, California Department of Health Services, Office of Independent Oversight and Performance Assurance (OA), and your staff. LSO incorporates these reviews into the LSO oversight program, ensuring proper corrective actions are taken, and incorporating the results into the performance evaluation process.

LSO conducts periodic formal reviews to confirm LLNL performance of work is in accordance with ISM principles. The scope of these reviews is determined by LSO with input from NNSA Headquarters and LLNL. LSO uses its analysis of LLNL self-assessment results, performance measures and operational awareness as input to scoping the periodic review. While all these sources of information help to provide recommended areas for review, I am ultimately responsible for the final decision on the scope of the reviews.

LSO conducts for-cause reviews if trends of performance measures and/or metrics, performance reporting systems, or operational awareness activities indicate a need for further review or investigation. For example, a review of the technical adequacy of USQs has just been completed.

NNSA Headquarters is notified of these formal reviews and invited to participate. The results of these reviews are shared with HQ staff.

- **Reporting Systems Monitoring**

LSO regularly monitors reporting systems. These systems include the Occurrence Reporting and Processing System (ORPS), the Noncompliance Tracking System (NTS), Contractor Accident and Illness Reporting System (CAIRS), and other regulatory and DOE reporting systems. These reports may lead directly to an assessment as in the case of a Type A or Type B accident investigation or an investigation by the Office of Price-Anderson Enforcement. LSO monitors these reporting systems for trends that provide input to the periodic or for cause reviews discussed earlier. Headquarters is notified of significant occurrences in accordance with the requirements of ORPS.

- **Contract Performance Measures and Metrics**

The performance objectives and measures in Appendix F of the University of California (UC) contract are the cornerstone of how NNSA evaluates LLNL's performance. We have recently restructured this process with the goal of focusing on strategic and mission critical areas that NNSA and UC leadership agree must be delivered by UC.

NNSA and UC negotiated the FY 2004 Appendix F that includes ten interdependent Strategic Performance Objectives and 43 performance measures that define the mission, operations, and management performance expectations in support of NNSA's current and future national security, science and technology, and operational responsibilities.

One of the performance objectives is "Maintain a secure, safe, environmentally sound, effective and efficient operations and infrastructure basis in support of mission objectives." There are several performance measures under this objective, such as

“Achieve continual improvement in ISM” and “Continue to comply and improve performance in meeting the requirements of 10 CFR 830, Subparts A and B.”

Implementation of Appendix F is supported by the Contractor’s Evaluation Plan (CEP) that includes implementation guidelines for each Performance Objective and Measure. The contractor provides an annual Self-Evaluation Report assessing their performance using the guidelines in this plan. These implementing guidelines are shared with NNSA and are not limiting in terms of scope for either LLNL’s or LSO’s assessments.

LSO prepares an Assessment Management Plan that describes criteria and LSO activities used for validation and assessment of LLNL’s performance against these objectives and measures. An annual Performance Evaluation Report prepared by the Site Office Manager provides an evaluation of the contractor’s performance during the Appendix F appraisal period.

The results from the oversight activities I have discussed provide input to the evaluation of LLNL’s performance against these measures. It is LSO’s responsibility to analyze the input (LSO, external, and LLNL internal) and evaluate the contractor’s performance. The analysis of all the data provided by these oversight and self-assessment activities and the development of conclusions about the contractor’s performance is an ongoing challenge in order to ensure that the laboratory is assessed objectively and in accordance with contract terms.

Senior UC/LLNL, LSO and NNSA management participate in this entire process that consists of identifying the annual strategic and mission focus areas, developing and negotiating the performance objectives and measures, and preparing and reviewing the Contractor Evaluation Plan and Assessment Management Plan guidelines. These same senior managers conduct the mid-year progress review and the annual evaluation meeting. The FY2003 performance evaluation meeting was held on December 4, 2003.

- **LLNL Contractor Assurance System**

The last component of the LSO oversight program is the LLNL Assurance System. LSO uses the outputs from LLNL’s various internal assessment systems to help focus the LSO activities on high risk and poor performing areas. LLNL needs to strengthen its assurance system to meet the goals of the DOE policy on oversight (DOE P 226.1) and the NNSA policy on the Contractor Assurance System. LSO is working closely with LLNL as it redesigns its assurance system to meet these requirements.

One of the key areas of LLNL’s Assurance System that needs improvement is the corrective action program. I am concerned that the current corrective action program is deficient in several areas including timely implementation of corrective actions, effectiveness of corrective actions in addressing identified deficiencies, and that actions are too often limited to one organization at LLNL rather than fixing the

problem Laboratory-wide. Dr. Anastasio will discuss the improvements that LLNL is planning for its corrective action program.

Clearly a strong Contractor Assurance System can help LSO focus its oversight, and improve the effective and efficient use of NNSA resources. Until such time as my staff and I are comfortable that there is a strong Contractor Assurance System operating, our oversight activities will remain unchanged. Once my staff and I are comfortable that there is a strong Contractor Assurance System implemented, we will begin to invest more resources on the high risk and poor performing areas. However, I am committed to ensuring that the Contractor Assurance System remains strong by requiring my staff to perform detailed periodic formal reviews of the system.

These oversight activities and LLNL's internal assurance program provide extensive performance data that LSO does not often use effectively. I am committed to improving LSO's capability to analyze this data to detect trends indicating deteriorating performance; identifying those trends to LLNL, and ensuring the necessary corrective actions are taken.

### **HQ interaction**

In accordance with the Administrator's memo on the delegation of authority for ES&H, the Deputy Administrator for Defense Programs (NA-10) will serve as the Lead Program Secretarial Officer for Environment, Safety, and Health matters at the eight NNSA-owned facilities including LLNL. Thus, I am expected to keep NA-10 informed of ES&H program status and forward timely information on issues that affect those programs so that Dr. Beckner can make decisions on program direction and resource allocation.

In addition to the previously mentioned information exchanges (e.g. ORPS, Appendix F) other avenues of information sharing include;

- day-to-day interactions on specific issues
- weekly conference calls with NA-3, NA-10, and NA-117 to discuss ES&H issues and occurrences
- NA-10 quarterly conference calls to assess the status of corrective actions being tracked in Corrective Action Tracking System (CATS)
- LSO input to the NNSA ES&H Advisor for the quarterly performance metric report summarizing site performance.

### **LSO Self-Assessment Program**

It is my expectation that all of my staff members perform continuous self-assessment to identify ways of improving how they perform their responsibilities. In addition to this expectation, LSO performs an annual formal self-assessment of ES&H.

The goal of the self-assessment is to gauge and document LSO's compliance and performance based on the requirements and expectations as set forth in DOE P 450.4 "Integrated Safety Management Systems (ISMS)." Additional specific topics are added



to the effort based on the needs and concerns of management, including input from NNSA Headquarters. For example, this year LSO has added Quality Assurance as a special topic. Headquarters is also invited to participate in the self-assessment.

LSO develops performance objectives, measures and expectations against which the self-assessment is performed. This year we have developed Criteria, Review and Approach Documents for the self-assessment effort.

A corrective action plan to eliminate deficiencies and the associated root causes is also developed. The corrective action plan for the 2002 LSO self-assessment contained eight actions, four of which have been completed. Most of the remaining actions involve the implementation of our TQP.

### **Columbia Accident**

As you are aware, the Administrator has chartered a team to review the Columbia Accident Investigation Board report for lessons learned. In addition to supporting this team, I have chartered an internal LSO team to review the report for lessons learned that might be specific to LSO. I have made the accident report required reading for my senior staff as well as my safety personnel, and I have coordinated the efforts of the team with LLNL's internal team.

I will be using the NNSA and LSO reviews of the Columbia Accident Investigation Board report to identify the corrective actions to be taken by LSO.

### **Conclusion**

In conclusion, I am committed to assuring protection of the health and safety of the workers at LLNL and the community that surrounds our site. I am held accountable for the risk management decisions I make that effect their safety and health. Likewise, I will hold the contractor accountable for implementing the risk management decisions I make through an oversight system that focuses on the key contributors to risk. I have been given the resources necessary to implement my responsibilities. However, as requirements change, I have an open channel to the Service Center to get one of a kind support, and/or to Ambassador Brooks to seek adjustments to my staffing plan.

ES&H is a process of continual improvement, improvement accomplished through commitment, culture and practice. I take this responsibility seriously and seek outside expertise whenever necessary. I also welcome input from the Board and other sources on how to improve safety at LLNL.

Thank you.