



Department of Energy
Office of Science
Washington, DC 20585

January 6, 2010

MEMORANDUM FOR DISTRIBUTION

FROM: GEORGE J. MALOSH
DEPUTY DIRECTOR FOR FIELD OPERATIONS
OFFICE OF SCIENCE

SUBJECT: IMPLEMENTATION OF CONTRACTOR ASSURANCE PROCESSES
AT OFFICE OF SCIENCE (SC) LABORATORIES

On July 23, 2009, as part of our reform discussions in the DDFO meeting, I discussed the need to focus on implementation of contractor assurance systems at our laboratories and chartered a team of Site Office Managers and contractor Chief Operating Officers to define contractor assurance, establish principles of operation, and identify contractual and directive changes needed to implement contractor assurance at our laboratories. The team has completed their work and we are now ready to begin to implement our contractor assurance processes. Enclosed are the materials developed by the team: the SC contractor assurance description; the special contract requirements (Section H) Clause for the Management and Operating (M&O) contracts; the implementation schedule, and; a set of questions and answers to aid in understanding our move to contractor assurance.

Implementation of contractor assurance at our laboratories will be accomplished over time, as outlined in the enclosed schedule. The steps to implementation include:

1. Modification of existing M&O contracts to incorporate the H Clause.
2. Approval of an equivalency determination by the Director of the Office of Science allowing removal of the DOE Order 226.1A Contractor Requirements Document from our contracts.
3. Formalization of the contractor assurance process in the Office of Science Management System (SCMS). A team of SCMS Management System Owners, Site Office and ISC staff has been formed to accomplish this step.
4. Development of a contractor assurance peer review process and the conduct of three peer reviews in 2010.

As the Head of the Contracting Activity, I direct you to implement the first step outlined above by working with your Contracting Officer and M&O contractor to incorporate the new Section H Clause into your laboratory's contract by January 31, 2010.

A portion of our February DDFO meeting will be dedicated to discussing our progress toward implementation of the contractor assurance processes. I look forward to hearing from each of you.



Enclosures:
As Stated

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The following summarizes the goals, principles, processes, roles and responsibilities and outcomes that define *assurance* functions at Office of Science (SC) laboratories. These functions include corporate Governance, corporate assurance, and contractor and SC line management. Because these functions are so interdependent, they actually form a single, comprehensive assurance system that will be referred to throughout this description simply as *assurance*.

Assurance is designed to ensure mission objectives are met; workers, the public, and the environment are protected; and operational, facility, and business systems are effectively run and contract requirements are met. This comprehensive and integrated system applies to all Contractor staff (including guests and subcontractors) and operations.

1. Goals

A Contractor Assurance System (CAS) is effective when:

- CAS processes drive improvements;
- CAS self identifies, corrects, and prevents issues;
- CAS operational awareness activities demonstrate effectiveness that allows DOE oversight activities to be revised;
- Third party reviews/independent inspections indicate the systems and processes are effective;
- Performance metrics demonstrate acceptable levels and/or consistent improvement of performance;
- Resources are appropriately applied to identify issues and solve problems that effect performance or impact mission; and
- A climate of mutual trust exists between DOE and the contractor.

2. Principles

- a. Line management is accountable for performance. Contractor and federal line managers are fully responsible for achieving assigned objectives in a manner that is safe, secure, legally and ethically sound, as well as fiscally responsible.
- b. Assurance is reasonable, not absolute. The contractor is accountable for providing *reasonable assurance* to the DOE that the Laboratory's system of management controls when properly implemented provides an effective and efficient means of meeting all applicable requirements while accomplishing assigned missions.
- c. Assurance covers the full scope of Laboratory operations. To provide reasonable assurance, the contractor must identify, monitor, and address existing and/or emerging risks important to the accomplishment of the Laboratory's mission and contract requirements.
- d. Assurance is provided by the Contractor. Laboratory management provides performance data to Governance processes, which ultimately provide assurance to DOE.
- e. Assurance is an outcome, not a process. Provisions of reasonable assurance are the result of properly functioning performance management and Governance processes, not a substitute for the processes themselves.
- f. Effective Assurance is built on mutual trust between DOE and the contractor.
- g. Effective assurance and Governance are necessary for DOE to consider modification of its oversight model.

3. Definitions

Contractor: Any entity under contract with the Department of Energy with the responsibility to perform activities at a DOE site or facility.

Governance: The process of governing and exercising a deciding and determining influence on the management and operations of a DOE laboratory. "Governance" incorporates a structure of leadership and decision making processes that include fiduciary, oversight, and assurance responsibilities that enable it to oversee and hold Laboratory management accountable for achievement of desired mission outcomes.

Line Management or Mission Management: The line of DOE and contractor managers who have responsibility and accountability for delivery of the DOE science mission that is safe, secure, legally and ethically, and is fiscally responsible.

Laboratory Management: The line of contractor mission managers assigned responsibilities for a functional area, line of business and/or directing/conducting work at a DOE laboratory.

4. Process

DOE Site Offices, in partnership with their contractors, will enable mission accomplishment while performing its role in contract management, oversight, and performance evaluation. The laboratory strategic plan formulation and execution to meet the long term stewardship goals of the laboratory is essential to align DOE and the contractor in accomplishing/addressing the mission needs.

A robust and effectively functioning CAS will allow DOE to revise its oversight function to leverage the processes and outcomes of the contractor. Laboratory Management and Governance roles and performance assurance processes are distinct in their purpose and outcomes, but are mutually supportive in that they rely on interdependent inputs and outputs to enable the Contractor to deliver the outcome of “*reasonable assurance*.”

- DOE’s role includes partnering with the contractor, validating and verifying effectiveness of contractor assurance system and providing feedback to Office of Science leadership as part of its annual evaluation process.
- Laboratory Management delivers mission outcomes and provides efficient and effective strategic and operational performance.
- Laboratory Management provides performance information to Corporate Governance.
- Governance provides feedback to Laboratory Management about Laboratory performance in the form of acceptance or the need for course corrections.

- Governance provides oversight of Laboratory performance and holds Laboratory Management accountable for these outcomes so that the Contractor may provide assurance to DOE.
- CAS peer review enhances assurance.

a. **Performance Management**

Management of Laboratory performance is carried out through a set of internal processes executed by Laboratory Leadership to enable the planning, execution, assessment, and improvement of work conducted at the Laboratory. Laboratory performance assurance processes, including self-assessment, performance measurement, issues management, and feedback and improvement, generate information needed to manage and improve performance. When effective, their processes also provide confidence to Corporate Governance, laboratory management, and DOE that research and operations are meeting, and will continue to meet, mission and business objectives, applicable requirements, and customer expectations while appropriately managing risks.

i. Self-Assessment

Self-assessment is a critical element of performance management that includes ongoing, integrated monitoring (operational awareness) of laboratory operations and objective evaluations that identify risks that could prevent objectives from being met. Assessment mechanisms include:

- Management assessments (spaces, processes, and programs),
- External or independent assessments, audits or inspections,
- Operational Awareness, including activity observations, and
- Analysis and reporting.

ii. Performance Measurement

Performance measures allow the contractor to monitor vital operations, analyze data, and identify adverse conditions and trends before they become significant

issues. Examples of performance measures include DOE contract performance evaluation criteria, and program, process and organization-specific measures. Management is informed through many mechanisms including operational awareness, performance reports, trending and analysis, as well as dashboard reports.

iii. Issues Management

Issues Management is a comprehensive, structured system that provides for a graded approach to timely, effectively, and sustainably resolve deficiencies.

Elements of an effective Issues Management program include:

- Causal analysis,
- Extent of condition review,
- Corrective action development, tracking, and implementation,
- Corrective action effectiveness review, and
- Lessons learned development, dissemination, and integration into ongoing activities.

iv. Feedback and Improvement

Feedback and Improvement is a continual process that utilizes feedback and/or lessons learned to develop and incorporate improvements in CAS activities. Feedback and improvement must be an integral part of CAS processes and activities at both the micro and the macro levels to be effective.

Performance Management enables Laboratory Management to demonstrate to the Corporate Parent that:

- Laboratory strategy is being executed efficiently and effectively, and is carried out with a high degree of confidence through planning, work processes and controls, measurement, analysis, and continuous improvement.

- Laboratory management is predictive and preventive in managing performance and risk.

Performance Management outputs are a tool used by DOE to fulfill its oversight responsibilities in an open and honest manner as owner and regulator by providing insights to performance of the contractor, avoiding duplication and disruption.

b. Governance

Governance executes fiduciary, oversight, and assurance roles by utilizing performance data from the laboratory and other sources to oversee and hold laboratory leadership accountable for overall laboratory performance. Governance is generally the responsibility of the corporate parent or entity. The expectations of Governance are integrated with DOE needs and requirements and are communicated to the Laboratory. Governance assesses against these expectations to determine that:

- Performance is on track,
- Risks are properly identified and mitigated,
- Corrective actions are needed or have been effective.

Measurement against these expectations enables Governance to provide reasonable assurance to DOE that laboratory management is executing the Laboratory's strategic plan, achieving performance goals, effectively managing risk, and has the capabilities needed to meet current and future mission needs.

CAS peer review can provide a collaborative process to assess the effectiveness of the contractor management systems. More importantly, operational peer review processes can facilitate the identification, evaluation, and institution (where appropriate) of systems and approaches that could improve the effectiveness and/or efficiency of laboratory performance at other sites and among other contractor organizations.

5. Roles, Responsibilities, and Accountabilities

a. Line Management (DOE and contractor)

- Owns the assurance process
- Models behaviors consistent with a culture of trust, honesty, and accountability
- Is competent and engaged
- Is objective and self critical
- Takes appropriate actions, as required, to sustain or improve operations

b. Contractor/Parent

- Provides feedback to Laboratory management about performance
- Objectively validates performance objectives are being met at the Laboratory
- Provides reasonable assurance to DOE that the Laboratory is meeting expectations, and where not, ensuring effective corrective action plans are in place.
- Holds Laboratory leadership accountable for performance

c. Laboratory Management

- Establishes and implements internal processes that are consistent with the Contractor Assurance Program
- Meets performance expectations
- Accountable for performance of the Laboratory

d. DOE

- Provides contract direction including performance expectations
- Independently assesses performance of the contractor in meeting performance requirements and expectations utilizing the outcomes of the contractor's assurance program to the maximum extent possible.
- Holds the contractor accountable for performance
- Works with the contractor as a partner to continually improve the operation and mission delivery of the laboratory

- e. Functional/Support Mission Support Organizations
 - Provide assistance and advice to line management, as requested

6. Outcomes

The outcome of assurance results from the execution of the Laboratory's performance management functions and the contractor's Governance processes. Through these distinct, but interdependent processes, the contractor is able to provide reasonable assurance to DOE that:

- a. DOE and the contractor understand the risks and believe they are managed effectively.
- b. The systems and controls employed to monitor and manage risk relative to acceptable limits are adequate. While the systems and controls will not prevent all untoward events from happening, they will provide line management with a clear understanding of potential impacts to Laboratory performance. Risks and their mitigation are documented sufficiently for the contractor and DOE to advocate their effectiveness with external reviewers and stakeholders.
- c. Management and quality assurance systems are documented sufficiently to assure their effectiveness and that all levels of management are accountable.
- d. Corrective and preventive actions are effectively implemented.
- e. Duplication of efforts and disruption of work are eliminated and the contractor supports DOE in fulfilling its oversight obligation as owner and regulator.
- f. Performance is acceptable across the laboratory.

The Contractor's corporate parent is accountable for provision of reasonable assurance that the Laboratory's system of management controls provides an effective and efficient means of meeting all applicable requirements while accomplishing assigned missions.

12/21/09

H Clause: Contractor Assurance System

- (a) The Contractor shall develop a contractor assurance system that is executed by the Contractor's Board of Directors (or equivalent corporate oversight entity) and implemented throughout the Contractor's organization. This system provides reasonable assurance that the objectives of the contractor management systems are being accomplished and that the systems and controls will be effective and efficient. The contractor assurance system, at a minimum, shall include the following key attributes:
- (1) A comprehensive description of the assurance system with processes, key activities, and accountabilities clearly identified.
 - (2) A method for verifying/ensuring effective assurance system processes. Third party audits, peer reviews, independent assessments, and external certification (such as VPP and ISO 9001 or ISO 14001) may be used.
 - (3) Timely notification to the Contracting Officer of significant assurance system changes prior to the changes.
 - (4) Rigorous, risk-based, credible self-assessments, and feedback and improvement activities, including utilization of nationally recognized experts, and other independent reviews to assess and improve the Contractor's work process and to carry out independent risk and vulnerability studies.
 - (5) Identification and correction of negative performance/compliance trends before they become significant issues.
 - (6) Integration of the assurance system with other management systems including Integrated Safety Management.
 - (7) Metrics and targets to assess performance, including benchmarking of key functional areas with other DOE contractors, industry and research institutions. Assure development of metrics and targets that result in efficient and cost effective performance.
 - (8) Continuous feedback and performance improvement.
 - (9) An implementation plan (if needed) that considers and mitigates risks.
 - (10) Timely and appropriate communication to the Contracting Officer, including electronic access, of assurance related information.

The initial contractor assurance system description shall be approved by the Contracting Officer.

- (b) The Government may revise its level and/or mix of oversight of this contract when the Contracting Officer determines that the assurance system is or is not operating effectively.

CAS Schedule (12/28/09)

CAS Description	Responsible Person	Date
1. Final review of revised CAS description by team	CAS Team	November 20
2. CAS Description provided as final to SC/SOM/COOs	Moore	November 23
H Clause		
1. Final review of H clause by team	CAS Team	November 20
2. Provided to SC/SOM/COO as final	Moore	November 23
3. SOMs work with contractors/COs to incorporate in contracts	SOMs	January 31, 2010
4. Identify implementation issues/IPs as necessary to DOE	Contractor/COO	February 10, 2010
5. SOM/COOs discuss status of implementation in DDFO meeting	SOM/COO	February 10, 2010
DOE Order 226.1A		
Contractors implement new H clause, SOMs are satisfied with Implementation and allow CRD removal consistent with SC-1 approval, SC-31 works equivalency approval request with SC-1	Marc Jones, ISC, SOMs	May 30, 2010
DOE SCMS Changes		
1. DOE identify team with ISC to work modifications in SCMS	Holland/Golan/Moore	December 28
2. Team assembles and modifies MS/procedures and incorporates CAS description/Q&As into documents	Team	February 28, 2010
3. Documents are coordinated with MSOs and issued for comment		March 15, 2010
4. SCMS documents finalized		April 9, 2010
CAS Peer Review		
1. Develop initial CAS peer review guide	Mohler/COO Team	December 18, 2009
2. Issue as draft to COOs/SOMs for review		January 22, 2010
3. Finalize CAS peer review documents		February 10, 2010
4. Identify initial peer review team		March 5, 2010
5. Pilot Peer review at ORNL		April 30, 2010
6. Factor in lessons learned and conduct next peer review at PNNL		July 30, 2010
7. Peer review - LBNL		September 30, 2010
8. Evaluate process during FY 2010 incorporate mods for FY 2011		October 2010

Contractor Assurance System Questions and Answers

1. What is contractor assurance system?

Contractor assurance system is designed to ensure mission objectives are met; workers, the public, and the environment are protected; and operational facility and business systems are effectively run and contractor requirements are met. This comprehensive and integrated system applies to all contractor staff and operations (including business systems). The assurance system must include contractor assessment activities, independent assessment (which can include 3rd party certifications), and structured operational awareness activities. Operational awareness activities include onsite reviews, assessments, self-assessments, performance evaluations, and other activities that evaluate effectiveness. The foundation of an assurance system is a robust contractor self-assessment program led by line management. Much of what our DOE site offices presently do under the heading of operational awareness will have to be assumed by our contractor's assurance system if DOE is to modify its approach to oversight.

2. What are the minimum components of a contractor assurance system?

Corporate assurance and oversight, which may include risk committees that periodically look at areas such as operations, finance, strategic planning, independent audit and oversight functions, operational awareness functions for day-to-day oversight. Processes including self-assessment, corporate audits, 3rd party certifications, external reviews (including peer reviews), and operational awareness. Also it includes key metrics that are leading indicators of performance in high priority areas that are not necessarily PEMP metrics. Also needs to include an issues management process that captures the results of the assessment activities and operational experience and facilitates effective causal analysis, extent of condition reviews, corrective actions, and lessons learned.

3. How do we know we're there?

We'll begin to know through site office verification of the contractor assurance systems and processes; when assurance systems and processes begin to drive improvements; when the assurance system begins to self-identify issues and processes are in place to correct them. DOE may modify its approach to oversight when operational awareness activities begin to be effective and when third party certifications and reviews/inspections indicate that the systems and processes are effective and when internal metrics show consistent improvement or acceptable levels of performance.

4. Are there models that help define, develop, and implement CAS?

Examples include Battelle contractor assurance models at BNL, ORNL, and PNNL; third party certification programs for environmental managements (1400.1), VPP and OSHAS 18001 for ES&H and the Kansas City Plant model. Laboratory ES&H assurance process and the balanced scorecard approach plus a peer review process provides a good platform for SC.

5. How do we enact the provision in the H clause that "The Government may revise its level and/or mix of oversight of this contract when the Contracting Officer determines that the CAS is operating effectively"

When the Site Office and DOE SC are comfortable with laboratory results described in #3 above. A successful CAS will enhance communications pathways for DOE to perform its contract management, oversight, and performance evaluation roles.