

Evaluating Contractor Assurance Systems

PURPOSE: Contractors must have an operational and effective CAS to meet NNSA expectations and enable effective and efficient line oversight by NNSA. This section describes the critical attributes of a Contractor assurance system and provides the objectives, criteria, and lines of inquiry that should be used to evaluate the implementation and effectiveness of a CAS.

Element 1 – Assessments

Element Objective

The Contractor uses a robust and effective, risk-informed approach to develop, implement, and perform comprehensive assessments of all facilities, systems, and organizational elements, including subcontractors, on a recurring basis.

Implementation Criteria

- The processes used to implement the elements described in a Contractor’s CAS description document are sufficiently defined that they can be executed in a repeatable and predictable manner.
- The processes are being used in the specified manner by the Contractor’s functional and organizational segments.
- The scope and frequency of assessments are specified in Site plans and program documents and ensure that:
 1. assessments required by applicable DOE directives are being performed;
 2. the effectiveness of safety management programs, including programs that are credited in the safety basis for nuclear facilities are being assessed adequately;
 3. deficiencies are being self-identified; and corrective actions are being taken in a timely and effective manner.

Implementation Lines of Inquiry

- How do you know that assessments will be planned and performed in a reliable and predictable manner across the organization?
- How do you know that assessments will be planned and performed in a manner that is consistent with the risks and performance uncertainties related to the organization’s mission objectives and contractual requirements?
- How do you know that the assessment planning and performance processes are maintained consistent with changing organizational needs?
- What defines which functions and parts of the organization should be performing assessments?
- How would you know that the defined functions and/or parts of the organization are performing assessments as expected?
- How do you know that your assessments are providing you results that provide an

accurate reflection of performance?

- How do you know that the assessment planning and performance processes are appropriately integrated with other CAS elements and management systems?
- How do you know that all assessments required by DOE Orders are being performed?
- What are the requirements for assessing the effectiveness of safety management programs?
- How do you know that safety management programs are adequately assessed?

Implementation Review Approach

- Review the Contractor's contract, CAS description document, and assessment planning and performance procedures and records.
- Review Contractor assessments including planning, implementation and results.
- Interview Contractor line and support (including independent oversight) managers.
- Observe performance of one or more Contractor assessments.

Effectiveness Criteria

- Results of contractor assessments align and resonate with those resulting from third party, independent, and/or federal assessments of similar functions.
- When results differ between contractor assessments, other similar NNSA or external assessments, the contractor proactively probes to understand why these differences exist and how best to resolve them.
- The Assessment program measures the degree to which the elements described in a contractor's CAS description document are demonstrating the desired outcomes, and provides a basis for demonstrating long-term performance levels and/or trends in evidence.
- The Assessment program is designed to identify implementation gaps that would preclude a CAS from being deemed effective.

Effectiveness Lines of Inquiry

- Are assessments being planned as expected? How do you know?
- Are there frequency, cycle time, or quality expectations that apply to assessment planning? If so, how do you know how well you are performing against them?
- Are assessments being performed as expected?
- Are there frequency, cycle time, or quality expectations that apply to assessment planning? If so, how do you know how well you are performing against them?
- Is assessment data reliably translated into actionable information? How do you know?
- Is assessment data adequately transparent to DOE elements and corporate governance? How do you know?
- Are assessments reliably finding issues before they are identified by external assessors and before they become problems? How do you know?
- How do the results of your assessments compare to those of audits and assessments from DOE or other external parties? What do you do if there is disagreement between internal and external assessment results?
- What does the Contractor do when there is a difference in their assessment results as compared to similar NNSA or external assessments?
- Has the CAS been modified based on implementation gaps identified by assessments?

Effectiveness Review Approach

- Review the Contractor's assessment planning, performance, and reporting records.
- Review the results of Contractor assessments as compared to similar assessment performed by NNSA or external parties. Interview Contractor line and support personnel.
- Review levels and trends for measures associated with assessment performance.
- Observe performance and/or reporting of one or more Contractor assessments.

Element 2 – Operating Experience

Element Objective

Formal programs are established and effectively implemented to collect, analyze, and use information from operational events, accidents, and injuries in order to prevent them in the future.

Implementation Criteria

- The processes used to implement the elements described in a Contractor's CAS description document are sufficiently defined that they can be executed in a repeatable and predictable manner.
- The contractor establishes and implements processes to solicit feedback from workers and work activities.
- Formal programs are established to communicate lessons learned during work activities, process reviews, and event analyses to potential users and applied to future work activities.
- The contractor identifies, applies, and exchanges lessons learned with the rest of the DOE complex.
- The contractor reviews and applies lessons learned identified by other DOE organizations and external sources to prevent similar occurrences.

Implementation Lines of Inquiry

- How is the sharing of operating experience information integrated with other CAS elements and management systems?
- How do you know that relevant lessons learned are collected and shared in a reliable and predictable manner across the organization and with the DOE?
- What defines which functions and parts of the organization should be sharing and acting upon lessons learned?
- How would you know that the defined functions and/or parts of the organization are using lessons learned as expected?

Implementation Review Approach

- Review the Contractor's CAS description document and operating experience identification, screening, evaluation, and dissemination procedures and records.

- Interview Contractor line managers, support managers, and staff.

Effectiveness Criteria

- The Lessons Learned processes are being used in the manner specified by the contractor's functional and organizational segments.
- There is objective evidence that experience from operational events is being tracked and used to drive continuous improvement

Effectiveness Lines of Inquiry

- Are lessons learned being collected and shared as planned? How do you know?
- Are lessons learned being acted upon as planned? How do you know?
- Are there frequency, cycle time, or quality expectations that apply to lessons learned processing? If so, how do you know how well you are performing against them?
- Is feedback and information from accident, event, and incident reporting and worker feedback processes being used to help identify opportunities for risk reduction and performance improvement? How do you know?

Effectiveness Review Approach

- Review the Contractor's operating experience identification, screening, evaluation, and dissemination records.
- Review levels and trends for measures of operating experience program performance.
- Interview Contractor line and support personnel.

Element 3 - Issues and Corrective Action Management

Element Objective

The Contractor ensures that a comprehensive, structured issues management system is in place. This system uses a risk-informed approach to provide for the timely and effective resolution of deficiencies and is an integral part of the CAS.

Implementation Criteria

- Formal issues and corrective action management processes exist that apply to all areas covered by the CAS
- The issues management system ensures that issues are evaluated and graded, and made visible to management using a risk informed approach
- The corrective action management system ensures management level attention and buy-in graded to issue significance
- Roles and responsibilities with respect to issues and corrective action management are clearly identified
- Requirements and processes for closure of issues are clearly defined and include sufficient

independence requirements to assure adequacy

- Issues and corrective action management are fully integrated into the CAS

Implementation Lines of Inquiry

- How do you know that issues are identified and translated into corrective actions in a reliable and predictable manner across the organization?
- How do you know that corrective actions will reliably and predictably resolve the issues with which they are associated?
- How do you know that issues and corrective actions are prioritized in a manner that is consistent with the organization's mission objectives and contractual requirements and NNSA expectations?
- How do you know that the issues and corrective action management processes are maintained consistent with changing organizational needs?
- What defines which functions and parts of the organization should be formally managing issues and corrective actions?
- How do you know that the issue and corrective action management processes are appropriately integrated with other CAS elements and management systems?

Implementation Review Approach

- Review the Contractor's CAS description document and issues and corrective action management procedures and records.
- Interview Contractor line managers, support managers, and staff.

Effectiveness Criteria

- Issues raised during recent internal and external reviews have been captured accurately in the issues management system; no issues are unaccounted for
- Corrective actions in the corrective action system are appropriate for the issues raised and are documented sufficiently using a graded approach
- Closure packages are complete and consistent with closure requirements
- Objective evidence exists of appropriate levels of management attention for open issues and appropriate management involvement in issue closure

Effectiveness Lines of Inquiry

- Are issues being identified as planned? How do you know?
- Are issues being translated into corrective actions as planned? How do you know?
- How is causal analysis used, where appropriate, in this process? How do you know?
- Are issues and corrective actions being managed across functions and sub-units of the organization as expected?
- Are there frequency, cycle time, or quality expectations that apply to issue processing? If so, how do you know how well you are performing against them?
- Are there frequency, cycle time, or quality expectations that apply to corrective action development and management? If so, how do you know how well you are performing against them?
- Is issue and corrective action management data transparent to DOE and corporate governance? How do you know?

- Are issues being effectively resolved? How do you know?

Effectiveness Review Approach

- Review the Contractor's issues and corrective action management records.
- Review levels and trends for measures of issues management performance.
- Interview Contractor line managers, support managers and staff

Element 4 – Performance Measures

Element Objective

The Contractor identifies, monitors, and analyzes data measuring the performance of facilities, programs, and organizations. The data are used to comprehensively demonstrate all aspects of performance with projected future trends.

Implementation Criteria

- The contractor has established performance areas to be analyzed and trended.
- Performance areas correspond to the areas covered by the CAS and include metrics that are graded in detail using a risk-informed approach for each area
- The contractor has processes and procedures in place to capture performance data and provide the data in a timely manner.
- Processes and procedures exist for analyzing the data and providing the results to management for consideration
- Performance measures are keyed to support contractual performance evaluation
- Objective evidence exists that management needs for performance data have been assessed and that the performance measures support management needs

Implementation Lines of Inquiry

- How do you know that outcome measures and their performance targets are selected consistent with the organization's mission objectives, contractual requirements, and customer expectations?
- How do you know that outcome measures and their performance targets are selected in a reliable and predictable manner across the organization and its functions?
- How are strategic needs considered when selecting measures and setting performance targets?
- How is benchmarking of key functional areas used? How do you know that leading indicators are selected in a reliable and predictable manner for outcome measures?
- How do you know if the performance measures provide timely information that guides actionable decision-making by Contractor personnel – including senior managers?
- How do you know if the performance measures provide information on the current adequacy and intensity of the CAS?
- What defines which functions and parts of the organization should be selecting and using outcome measures and leading indicators? How do you know that they are doing so?
- How do you know that measures are appropriately integrated with other CAS elements and management systems?

Implementation Review Approach

- Review the Contractor's contract, CAS description document, and performance measures selection and integration procedures and records.
- Review the Contractor's measures that are used by line and support managers.
- Interview Contractor line managers, support managers and staff

Effectiveness Criteria

- Performance areas identified in the CAS have been tracked and analyzed
- Managers at appropriate levels are aware of the most recent performance measures and are using them to support management decision making
- Performance analysis has been provided to management in a timely manner
- The results of external assessments are consistent with contractor performance assessment measures; inconsistencies are evaluated

Effectiveness Lines of Inquiry

- Are measures being selected as expected? How do you know?
- Are measures being used by managers to evaluate organizational and functional performance? How do you know?
- Are the measures being kept current with the changing organizational needs?
- Are there frequency, cycle time, or quality expectations that apply to measures planning? If so, how do you know how well you are performing against them?
- Are measures providing timely data for decision-making?
- Are measure performance levels and trends reliably translated into actionable information? How do you know?
- Are measures adequately transparent to DOE elements and corporate governance? How do you know?
- Are measures reliably finding issues before they are identified by external assessors and before they become larger problems? How do you know?

Effectiveness Review Approach

- Review the Contractor's performance measures selection and integration records.
- Review the levels and trends for a selection of measures key to the Contractor's line and support organizational performance.
- Review the results of external assessments.
- Interview Contractor line and independent oversight personnel.

Element 5 – Integrated Continuous Improvement**Element Objective**

The Contractor ensures the long-term sustainability and stewardship of the site and uses the results of performance measures and other CAS data to achieve improvements in performance.

Implementation Criteria

- The contractor has established formal programs to use the results of performance measures and assessments to foster continuous improvement.
- Translation of performance evaluations into improvement measures is documented and visible as part of the CAS.

- Performance information is considered in allocating resources, establishing goals, identifying performance trends, identifying potential problems, and applying lessons learned and good practices.
- CAS is continuously evaluated for effectiveness to ensure long-term sustainability stewardship of the site.

Implementation Lines of Inquiry

- How does Contractor management, NNSA, and the Contractor parent organization become informed of areas of concern?
- How does Contractor management, NNSA, and Contractor parent organization follow-up on areas of concern that warrant attention, and provide feedback and/or course corrections to Contractor management?
- How does Contractor management address areas of concern identified by NNSA or Contractor parent organizations?
- How is Contractor management held accountable for Contractor performance?
- How do you know that performance levels and trends are reliably translated into opportunities for risk reduction and performance improvement?
- How do you know that opportunities for risk reduction and performance improvement are prioritized in a manner that is consistent with the organization’s mission objectives, contractual requirements, and NNSA expectations?
- How do you know that the continuous Improvement processes are appropriately integrated with other CAS elements and management systems?

Implementation Review Approach

- Review the Contractor’s CAS description document and continuous improvement (including data analysis, correlation, and results communication) procedures and records.
- Interview Contractor line and support managers, including those in parent organizations.
- Observe one or more executive leadership meetings.

Effectiveness Criteria

- Results of performance measure analysis have led to validated improvements in systems, processes, or capabilities.
- Performance improvements have been translated into durable measures to ensure permanent improvements.

Effectiveness Lines of Inquiry

- Do assessments reliably lead to organizational improvement? How do you know? Are patterns and trends from issues being used to help identify performance uncertainties, risks, and emerging issues? How do you know?
- Do measures reliably lead to organizational improvement? How do you know?
- Are identified opportunities for risk reduction and performance improvement translating reliably into changes to systems, processes, and capabilities?
- Are the changes to systems, processes, and capabilities achieving the desired organizational results? How do you know?
- How do you know that continuous improvement gains can be sustained into the future?

Effectiveness Review Approach

- Review the Contractor’s continuous improvement (including data analysis, correlation, and

results communication) records.

- Review levels and trends for measures key to the Contractor's mission.
- Interview Contractor line and support managers, including those in parent organizations.
- Observe one or more executive leadership meetings.

