

**NNSA's HQ Assessment
and the Assist Team's Conclusions
Regarding CAS at LANL
presentation to the EFCOG/CAWG
May 7, 2009**

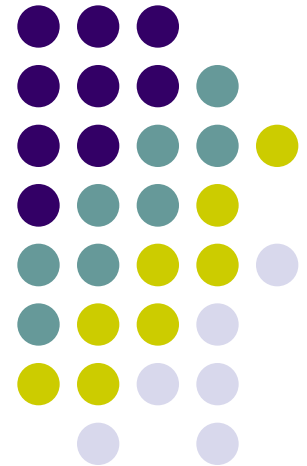


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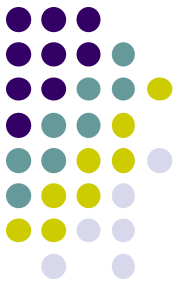


Objectives



- Part of NNSA corrective action plan (to Oct 07 CDNS Biennial Review of NNSA): develop Criteria and Review Approach Document (CRAD) for assessing CAS
- **Establish a Baseline for Contractor Assurance System (CAS) Implementation for NA-17**
- NNSA to complete assessment of CAS at all 8 sites by June 2010
- Provide Independent Assessment and Feedback on status of CAS implementation
- Pilot the Review Process
 - Evaluate review methodology
 - Update the CRAD

Evaluation Criteria



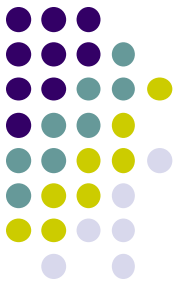
A criterion was met if there were no concerns or issues identified using the following definitions:

Concern: *Failure to meet requirement in criterion with **potential near term adverse impact**.* (A concern is similar to a readiness review pre-start finding)

Issue: *Failure to meet requirement in criterion, or limited implementation of required elements of criterion, with **minor or no near term adverse impact**.* (An Issue is similar to a readiness review post-start finding)

Opportunity for Improvement (OFI): *Recommendation to improve effective implementation of supporting CAS processes, CAS inputs and outputs, and/or overall CAS objectives.*

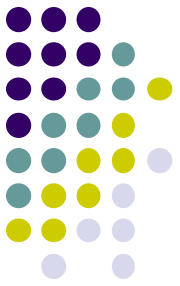
Executive Summary



- March 2009: LANL first of 8 NNSA Sites to be assessed
- Assist Visit at same time
- Preparation: Gap Analysis and document transmittals
- Summary of results
 - Validated the LANL CAS Assessments (Gap and Annual)
 - No concerns
 - 10 issues; **9 self-identified by LANL**
 - 26 Opportunities for Improvement (OFIs)
 - Favorable response to LANL's ICAM re-engineering project

Framework

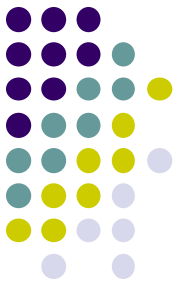
4 Functional Areas from the CRAD



<u>CAS Description</u> (Organization/Training/Planning/Procedures)		
<u>Assessments</u> <ul style="list-style-type: none">- Scope- Frequency/Scheduling- Types (Selft , Management, Independent, etc)- Risk Based- Compliance- Management Support	<u>Operational Awareness Activities</u> <ul style="list-style-type: none">- Event Reporting- Metrics/Indicators- Worker Feedback- Lessons Learned	<u>Issues Integration and Management Process</u> <ul style="list-style-type: none">- Analysis & Trending- Extent of Condition- Risk & Scheduling- Corrective Action Effectiveness- Use by Management- Integrated Evaluation

Functional Areas

- with 23 supporting criteria for evaluation

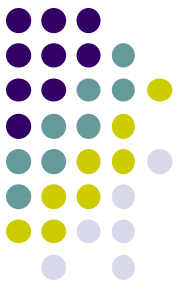


#1: Contractor Assurance **System Process Description**: LANL Meets most of the Criteria (4 sub-criterion - flow down to subcontractors -Subcontractor Safety Assessment)

#2: Contractor Assurance System **Assessments**: LANL Meets some of the criteria, but Partially Meets or has Opportunities for Improvement for most of the criteria. More criteria were provided for this section than the others (8 sub-criterion - documenting justification for frequency; feedback to IA's and RLM's, ICAM: causal analysis and extent of condition)

#3: Contractor Assurance System **Operational Awareness**: LANL Partially Meets or has Opportunities for Improvement for the criteria (6 sub-criterion - ORPS timeliness; LL use in work planning, IWM feedback and improvement)

#4: Contractor Assurance System **Issues Integration and Management**: LANL Meets some of the criteria, but Partially Meets or has Opportunities for Improvement for most of the criteria (5 sub-criterion - ICAM: interfaces between systems, causal analysis and extent of condition)



1: System Description - conclusion

- LANL CAS System Description (SD) **describes the overall design, supporting processes, and continuous improvement tools** that support LANL meeting the NNSA expectations for CAS
- The LANL Annual Contract Assurance letters and the supporting self-assessments indicate that the LANL **CAS has been approved and monitored as required by the LANL contract**
- The LANL CAS SD clearly demonstrates how the CAS system was designed and how the contract H clause requirements, one of which is the CAS, were being met
- The LANL CAS SD **needed to more clearly demonstrate compliance** with the DOE and NNSA CAS requirements in addition to the contract CAS requirements

1: System Description - analysis



No issues identified

6 OFIs identified:

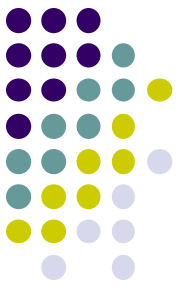
1. Revision history should include original publication date
2. Add a scope section and update Table B-1 DOE O 226 1A re: requirements flow-down
3. Include how management uses operational awareness info
4. Describe the tools used to drive integration with ISM, QA, ISSM
5. CAS DD should specifically identify **worker feedback** mechanisms within the supported process section and/or integration section of the documents
6. Update procedures to reflect correct training info

2: Assessments - conclusion



- A documented assessment process is in place which includes self-evaluations of compliance with various requirements as well as risk based assessments
- Assessments are **used by line management** to evaluate and document the adequacy of programs, processes, and performance
- Results of assessments are evaluated to identify needed improvements to programs, processes, and performance
- Assessments include corporate audits, third-party certifications, and external reviews by experts to validate contractor performance and to measure the effectiveness of CAS processes and activities
- **Deficiencies were identified in the planning, performance, and documentation of assessment results**

2: Assessments - analysis



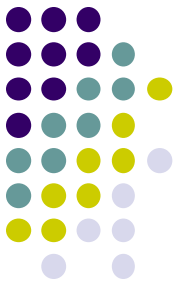
4 issues (all self-identified by LANL):

1. Assessment planning program doc does not explicitly address scope and frequency of assessments required by DOE O 226.1A
2. Assessment process **does not ensure all functional areas are covered**
3. **Causal analyses were not consistently conducted as required by ICAM**
4. **Timely entering and processing assessment results in ICAM is slow**

7 OFIs identified:

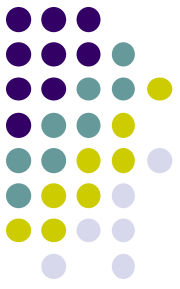
1. Develop tolls/processes to validate required assessments
2. Develop tool that defines subset of assessments for each owner
3. Consider parent peer or benchmarking review
4. Develop integrated multi-year planning tool
5. Balance compliance-based and performance-based management self assessments
6. Consider categorizing MOVs as an Operational Awareness activity instead of assessment activity
7. Encourage all ADs to initiate regular meetings with their LASO counterparts

3: Operational Awareness - conclusion



- LANL has implemented a structured, formal program for prompt reporting, analysis, and trending of data and to identify and make use of performance measures/indicators in the all the required functional areas
- LANL has implemented a formal process to identify and analyze lessons learned information and to communicate lessons learned to target audiences and potential users
- **Results** of operating experience, worker feedback, and lessons learned activities **are formally documented and readily available to DOE and contractor management**
- **Deficiencies** were identified **in** the effectiveness of gathering and applying **worker feedback and lessons learned** to work activities to prevent repeat or similar problems or occurrences
- LANL needed to improve implementation of lessons learned processes and training of personnel performing CAS support functions across all the various facilities

3: Operational Awareness - analysis



4 issues (all self-identified by LANL):

1. **LANL Dashboard does not support timely trending of operational data**
2. Facility-specific training does not incorporate lessons learned
3. **Lessons learned is not consistently incorporated into facility-level work planning**
4. Integrated Work Management process not effectively used to solicit worker feedback

3: Operational Awareness – analysis (contd.)



11 OFIs identified:

1. Balance outcome and process measures
2. Formalize identification and use of trending and analysis information to identify issues, weaknesses, and opportunities for improvement
3. Define expectations for trending analysis at the facility level
4. Develop competency statements for demonstrating achievement for personnel conducting trending and analysis statements
5. Send Lessons Learned to smallest possible target group (i.e. crane operators, maintenance)
6. Include Lessons Learned POC function in position descriptions
7. Develop Lessons Learned POC training plan
8. Develop Lessons Learned Administrative Procedure
9. Enhance query capability of LIMTS to develop and target recipients of lessons learned based on trending and analysis of operational issues
10. Develop performance metric related to worker feedback
11. Develop formal process to collect and respond to good recommendations from worker feedback

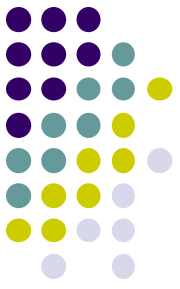
4: Issues Integration and Management

- conclusion



- Program and performance deficiencies, weaknesses, issues, findings, etc., regardless of their source, are entered into the LANL Issues Management Tracking System (LIMTS)
- The LANL Issues and Corrective Action Management (ICAM) process and the LIMTS tool include all the elements for an effective integrated issues integration and management process
- LANL has self identified numerous **process improvements and implementation deficiencies that have limited the overall effectiveness** of an integrated issues and corrective action management process
- LANL initiated an **ICAM re-engineering** project to address some of the ongoing problems caused by the current design of the system
- Several opportunities for improvement were noted in ICAM documentation, training, and implementation

4: Issues Integration and Management - analysis



2 issues (one self-identified by LANL):

1. **ICAM process does not function as an effective, integrated system to capture performance feedback** from all sources, and to facilitate continuous improvement through analysis, resolution and tracking of identified issues
2. **LANL is not conducting and documenting quarterly analysis of Cat 3,4,5 issues for trends**

2 OFIs identified:

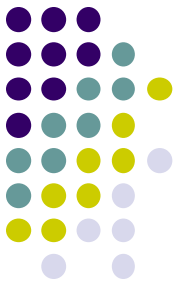
1. Reduce time delay between issue identification, entry, categorization, assignment and corrective action development.
2. Develop cradle to grave issue metric to enable evaluation of overall ICAM effectiveness.

Overall Observations



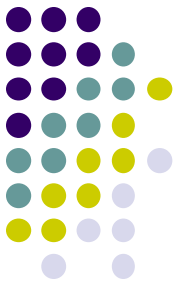
- Institutional CAS Program established
- Lab-wide Implementation Proceeding
- Some facilities behind in the implementation process
- LANL should focus on following:
 - **Complete and Implement ICAM Reengineering**
 - **Improve Facility level implementation**
 - **Define CAS related training/experience requirements based on function**
 - **Facilitate the development of facility level procedures for deployed CAS elements**
 - **Enhance consistency of development and use of metrics**
 - **Ensure worker feedback – generate it and use it**

Lessons Learned



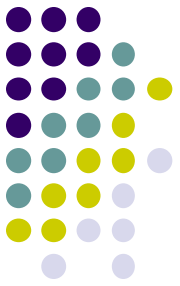
- CRAD needed to be revised to more clearly link to requirements (completed)
- Objective of review and the usefulness of overall conclusions needs to be evaluated
 - Currently overall conclusions are limited to the number of criteria met or not met based on compliance to orders.
 - Do we need to incorporate NNSA CAS expectations and measures to evaluate overall system effectiveness?
 - Should we include NNSA in the review, particularly Site Office and HQ functional area managers?
 - **If all 23 criteria met, do we say CAS is implemented?**
 - Was it intended that the results of this assessment be used to provide a basis or confidence level for using CAS to tailor NNSA oversight?
- Performance based assessment techniques difficult given the time to conduct the review.

Recommendations



- **Revise CRAD to be more objective related to requirements**
- Incorporate a NNSA Site Office and HQ oversight functional area
- Incorporate measures to evaluate effectiveness of CAS including HQ, Site Office, and contract management elements
- Site offices should conduct periodic performance based assessments of key elements of CAS using this CRAD
- **Common metrics should be used to drive uniform expectations for effectiveness of CAS elements**
- Peer assist should be requested by Site Office to help evaluate effectiveness of major changes to CAS, to provide recommendations to address significant ongoing CAS issues, or to assist with benchmarking CAS elements

Conclusion (LANL's POV)

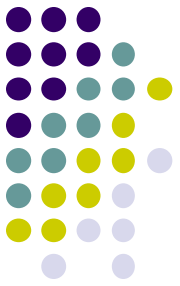


Self-assessment (gap analysis) against the CRADs yield valuable payoff

The assessment provides important opportunity to

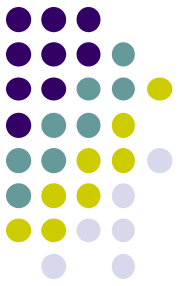
- Learn and improve effectiveness of CAS
- Influence future assessments: performance vs. compliance
- Prepare for the CDNS Biennial Survey of LASO
- Improve FY09 CAS Self-Assessment
- Prepare for HSS biennial ES&H inspection

NNSA Assist Team Review of LOCAS

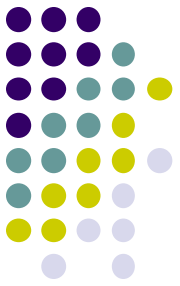


- First no “fault” peer review assist visit of its kind
- The Team provided excellent support and lessons learned in several areas
- The Team stated that
 - **CAS is improving LANL management and performance**
 - **LANL views CAS as a system for managing the Lab and is committed to doing so**
 - **CAS is transparent to LASO employees**
 - **Good communication between LANL and LASO**

Back-up slides

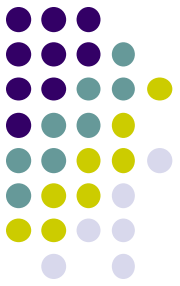


Criteria and Review Approach Document (CRAD) for NNSA HQ assessment



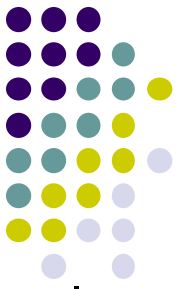
- Part of NNSA corrective action plan: develop CRAD for Contractor Assurance System Validation
- Based on CAS requirements in:
 - DOE O 226.1A, *Implementation of Department of Energy Oversight Policy*
 - NA-1 SD 226.1A, *NNSA Line Oversight and Contractor Assurance System Supplemental Directive*.
- Designed to be comprehensive and resemble those of an ORR, ISMS verification, or CDNS Biennial Review
- Not all M&O contracts have H clauses defining CAS as an integrated, performance-based management system
 - LASO Contracting Officer formally agreed that
 - H-4 Clause on CAS takes precedence
 - CAS Description Document meets the intent of O266.1A and SD 226.1A

NNSA Team and counterparts



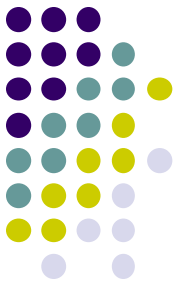
NNSA Team	Role	LANL POC
Al MacDougall (SC)	Team Lead (CRAD 1 & 4 support)	Bill Wadt/Camilla Lopez
Jeff Roberson (HQ)	Co-Team Lead (CRAD 2 support)	Marc Clay/Beverly Ramsey
Alam Mozumder (SC)	CRAD 1 Lead	Joe Ortega/John Buksa
Lynn Maestas (SC)	CRAD 3 Lead	Bob Stuewe/Barbara Hargis
Johnnie Nevarez (SC)	CRAD 2 Lead	Marc Clay/Beverly Ramsey
Don Seaborg (SC)	CRAD 4 Lead	Terry Lowe/Ivan Wachler
Marshall Young (HQ)	CRAD 3 Support	Bob Stuewe/Barbara Hargis
Ta'Keira Atkins (HQ)	Jeff Roberson mentee	

Contractor Self Assessment using the NNSA Draft CRAD



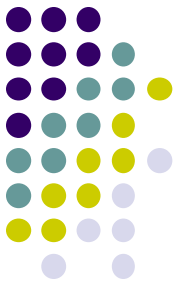
- Primarily a table top exercise using deployed CAS support personnel and results from previous CAS program self assessments
- Included objective evidence that supported meeting each criteria, any potential Gaps with meeting each criteria, and any evidence that supported exceeding the criteria for each of the 23 criteria
- Each potential gap was evaluated to determine whether the associated criteria was fully met, partially met, or not met
- LANL determined that 15 of the 23 NNSA CAS CRAD Criteria were met and that 8 were partially met
- Results documented in a report referred to as the CAS CRAD GAP Analysis

Preparation for assessment



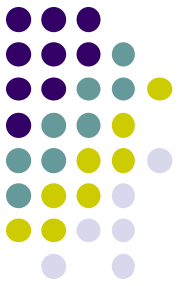
- GAP analysis against CRADs (very important!)
- Provided CAS documents
 - Contract requirements, CAS description documents, CAS and other assessments, LOCAS portal measures, FY09 PEP and PBI performance

LANL Gap Analysis Process



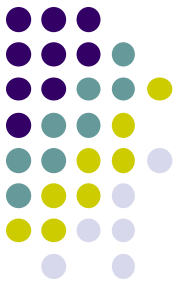
1. Develop assessment plan and worksheets containing the NNSA CRADs
2. Team leader review the FY08 CAS Management Self-Assessment and other relevant assessments
3. Team leader identify, by criterion, where these assessments provide evidence that LANL Meets, Partially Meets, or Does Not Meet the criteria
4. Form cross-CAS assessment team and schedule gap analysis work session
5. As a team, review team leader work and identify by criterion where LANL Meets, Meets with OFI, Partially Meets, or Does Not Meet the criteria, documenting evidence of such. Document where criterion may not be clear or in alignment with DOE O226.1A or Prime Contract.
6. Develop draft report for review and comment by management.
7. Publish final gap analysis report.
8. Annotate for NNSA Team which gaps were previously identified and their issues management system #'s

Looking ahead: NNSA HQ Assessment of CAS

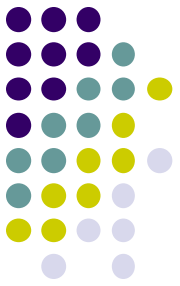


- LANL was the initial pilot – March 16-20, 2009
- Refine CRADs based on LANL and Y-12 (May) pilots
- NNSA HQ to complete assessment of CAS at all 8 sites by June 2010

NNSA Teams wanted to observe CAS in action



- MRBs
- Assessment in-briefs and out-briefs
- MOVs
- Management meetings using CAS tools (e.g., DAL, LANL Team, PEP reviews)
- Demos of on-line CAS tools
- On-line CAS training



Peer Assist Team Members

- Mike Zamorski, Lead
- Jeff Eichorst
- Jane Fitzpatrick (KCP)
- Barbara Boyle (SNL)