



QUALITY ASSURANCE PROGRAM DESCRIPTION AMES SITE OFFICE

Approved:



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2/10/09
Date

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The Ames Site Office Manager endorses the Quality Assurance program and has also provided concurrence below.

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2/18/09

Date

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SC-AMSO Revision History

TITLE: Quality Assurance Program Description

POINT OF CONTACT: Mike Saar

SC MANAGEMENT SYSTEM: Quality Assurance and Oversight

Launch Internet Explorer Browser.Ink **To BE UPDATED:** Annually or as needed

REVISION	DATE	REASON/DRIVER	DESCRIPTION
0	Aug 08	Update the AMSO Quality Assurance Program plan by converting to a Program Description and include references to SCMS and other updates.	Replaced AMSO SOP-2, Rev 3: Quality Assurance Program dated July 2006 to the AMSO Quality Assurance Program Description

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AMES SITE OFFICE QUALITY ASSURANCE PROGRAM DESCRIPTION

The Ames Site Office (AMSO) Quality Assurance Program Description (QAPD) describes how the AMSO implements the Department's ten Quality Assurance (QA) criteria delineated in DOE Order 414.1C paragraph 4.b. It establishes the broad Quality Policy and expectations for work within AMSO. While a national or international consensus standard was not used as the basis for the AMSO QAPD, there is considerable commonality between the ten Department of Energy (DOE) QA criteria, the requirements of ISO 9001-2000 *Quality Management Systems – Requirement* and DOE's Integrated Safety Management System (ISMS). This correlation is shown in the matrix provided in Attachment 1.

When applicable these criteria are discussed in the appropriate places in this QA plan to demonstrate their means of inclusion in the work of AMSO. These criteria are applied in a manner graded or tailored to fit the situation at AMSO.

The following sections describe how the criteria of DOE O 414.1C are implemented by AMSO. For clarity, the criterion from DOE O 414.1C is quoted at the beginning of each section, followed by a description of how AMSO satisfies the requirements. Refer to Attachment 1 for the correlation with each DOE QA Criteria to ISMS and ISO 9001-2000.

I. MANAGEMENT

A. PROGRAM

Criterion 1 – Program.

- (a) Establish an organizational structure, functional responsibilities, levels of authority, and interfaces for those managing, performing, and assessing work.
- (b) Establish management processes, including planning, scheduling, and providing resources for work.

AMSO is a technical and business management organization of the DOE, Office of Science (SC) co-located with the DOE Chicago Office (CH) Integrated Support Center (ISC) on the Argonne National Laboratory site in Illinois. The AMSO Manager is the SC Line Manager responsible and accountable to the SC Deputy Director Field Operations (DDFO) for the quality of the work of Federal employees assigned, and for the quality of operations at the Ames Laboratory site regardless of whether the work is performed by Federal employees, contractors, or subcontractors. The Site Office Manager is also responsible and accountable to the DDFO for ensuring that effective oversight of work performance is implemented. The AMSO draws matrix resources from CH-ISC. Attachment 2 is the AMSO and Matrix Support Team Organization Chart. (See Section I.A.2.2 Organization for a discussion on the Ames Office Organization). The position of the AMSO within the SC is illustrated in Attachment 3, SC Organization Chart. The overall mission of

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AMSO is to manage the DOE performance-based contract with the contractor for the safe, effective, and efficient operation of Ames Laboratory.

Ames Laboratory is a government-owned; contractor-operated DOE Laboratory located on the campus of the Iowa State University (ISU). The Ames Laboratory's mission is to conduct fundamental research in the physical, chemical, materials and mathematical sciences and engineering which underlie energy generation, conversion, transmission, and storage technologies, environmental improvement and other technical areas essential to national needs. The contractor, at present, is Iowa State University (ISU).

This document, the AMSO QAPD, addresses the AMSO functions that are important to the accomplishment of the Ames Laboratory mission, protection of the environment, the health and safety of the public and workers, Ames Laboratory security, and facility operability and facility life expectancy. It describes the management processes and controls used to provide confidence that the AMSO products and services meet expectations. Management processes cover planning, scheduling, performing, and assessing the work. The description of the management processes including delineation of the responsibilities, authorities, and interfaces associated with the processes, are discussed in Section I.A.1 Functions and Responsibilities.

Ames Laboratory's quality assurance plan is completed in accordance with the quality assurance directives, standards, and requirements contained in the performance-based contract. AMSO reviews and approves the Ames Laboratory's Quality Assurance Plan consistent with SCMS requirements. The AMSO performs oversight of the programs and activities of Ames Laboratory (as discussed in Section II Performance of this AMSO QAPD), including quality assurance and Price Anderson Amendments Act (PAAA) nuclear safety rule implementation.

The AMSO has primary responsibility for the DOE in the role of administration of programmatic, operational and administrative aspects of the contract for the management and operation of Ames Laboratory. Therefore, the AMSO monitors the Ames Laboratory's performance in order to provide confidence that the Ames Laboratory is conducting operations in a safe and effective manner that is consistent with the standards and obligations identified in the contract.

The AMSO serves as an integrator and a conduit for interactions (guidance, direction, responses to formal requests, contract negotiations, etc.) between DOE and Ames Laboratory and between DOE and the contractor. The AMSO objectives are:

- 1) Contract Management - setting and communicating expectations, integrating DOE requirements, authorizing and funding work and providing feedback to the contractor and the Ames Laboratory;

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- 2) Program Implementation - monitoring operations, reviewing and approving work and coordinating activities related to assigned programs and projects at the Ames Laboratory;
- 3) Federal Stewardship – maintaining and protecting Federal assets at the Ames Laboratory;
- 4) Internal Operations - managing the AMSO staff and administrative systems to assure effective operations within the AMSO.

I.A.1 Functions and Responsibilities: The major functions and responsibilities of the AMSO are listed below. The AMSO has both the DOE Contracting Officer (per DOE O 541.1B dated 04/21/2004) and DOE Contracting Officer Representative responsibility for the Ames Laboratory Office performance-based contract. By memo (R. Hopf to Chief Operation Officer, SC dated April 20, 2004, "Delegation of Authority/Designation Head of Contracting Authority"), delegation of contract activity performed at DOE site offices was specified. If the AMSO successfully achieves these functions, then the overall AMSO mission will be achieved. Important work processes within each of the major functions are addressed in section II.A. of this QAPD.

I.A.1.1 Contract Management (CM) related responsibilities

- 1) Serve as the DOE Contracting Officer.
- 2) Serve as the Contracting Officer Representative.
- 3) Negotiate and modify the Ames Laboratory contract, as required.
- 4) Authorize payment of costs and fee under the contract provisions.
- 5) Seek approval from the HCA for those required approvals that are not delegated to the AMSO.
- 6) Review and approve contract deliverables.
- 7) Enforce the contract requirements.
- 8) Determine the applicability of policy, administrative, operational, and programmatic requirements from all sources (including external requirements). Develop a single set of integrated requirements and place these into the contract.
- 9) Periodically review the contract and modify to keep current.
- 10) Provide formal direction and guidance to Ames Laboratory.
- 11) Develop contract performance measures and include in the Ames Laboratory contract.
- 12) Periodically evaluate contractor performance, develop performance ratings and provide feedback to Ames Laboratory.
- 13) Review, approve, and oversee contractor business and administrative systems such as financial, property (intellectual, real, and personal), human resources, litigation, small business, etc. consistent with applicable contract requirements.

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I.A.1.2 Program Implementation (PI) related responsibilities

- 1) Based on acceptable risk, scope and definition, authorize work through formal processes such as the Laboratory Directed Research and Development (LDRD) Approval Process, Project Directives, Technical Work Plans, etc.
- 2) Perform program management/implementation as delegated by program sponsors.
- 3) Serve as the federal project director for line-item construction and infrastructure projects at the laboratory.
- 4) Coordinate all DOE and external reviews, evaluations, and inspections of the Laboratory.
- 5) Participate, as appropriate, in reviews, evaluations, and inspections of the contractor by DOE and/or other external reviewers of both programmatic and operational areas.
- 6) Participate, as requested, in the planning and establishment of overall DOE SC expectations and directions, and provide feedback.
- 7) Seek approval for activities where authority does not reside within the AMSO.
- 8) Conduct negotiations with other federal agencies, as appropriate, related to Work for Others (WFO) Agreements, Technology Transfer (including Cooperative Research and Development Agreement (CRADAs)), Interdepartmental Work Orders and other agreements.
- 9) Serve as the point-of-contact for integrating the needs of SC and others, such as other DOE Assistant Secretaries, other agencies, federal and non-federal sponsors and stakeholders.
- 10) Ensure safe, secure, reliable, and efficient operations of Government assets through oversight and operational awareness, including Environment, Safety & Health (ES&H), Quality Assurance (QA), Security, National Environmental Policy Act (NEPA), PAAA, Cyber-security, Davis Bacon, and other areas.
- 11) Respond to and provide input to the Annual Field Budget Call and other special financial and budget information requests.
- 12) Assess the adequacy of contractor's management systems and self-assessment programs.
- 13) Develop a "sense of the Laboratory", including general knowledge of the Ames Laboratory science and technology programs, as well as, the Ames Laboratory operations.
- 14) Provide subject matter experts and support, as requested and available, to HQ-SC, Support Centers, or other SC site offices in achieving the overall SC mission. This can include staff expertise for project reviews, readiness reviews, policy development, etc.

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I.A.1.3 Federal Stewardship (FS) related responsibilities

- 1) Review and assess the long-term stewardship needs of the Ames Laboratory including contractor operations to assure protection of workers, site assets (both physical and intellectual), the public, and the environment and take action, as appropriate. Use tools, such as the Environment Safety and Health and Infrastructure (ESH&I) Management Plan, Institutional Plan, Federal Managers' Financial Integrity Act (FMFIA), Management Representation Letter, as well as, information gained through routine awareness activities.
- 2) Coordinate with DOE-HQ, the contractor, and other potential stakeholders to determine the optimal allocation of resources to meet the stewardship needs. This includes the review and assessment of the Ames Laboratory support activities (including administration, overhead activities, maintenance, General Plant Projects (GPP), General Plant Equipment (GPE), Institutional General Plant Projects (IGPP), physical security, etc.) against stewardship requirements and approval of the annual allocation of resources.
- 3) Serve as the owner for transactions affecting the Government's rights in federal assets, such as transfers of interest and execution of permits.
- 4) Maintain effective working relationships and communication with DOE-HQ, Ames Laboratory, the respective contractor, and appropriate federal, state and local agencies, including those responsible for regulatory oversight.
- 5) Oversee the Ames Laboratory's community stakeholder and media relations programs.
- 6) Provide feedback to SC and other HQ Program sponsors on the HQ funding, as well as, planning and direction activities that impact the Ames Laboratory site or infrastructure.

I.A.1.4 Internal AMSO Operations related responsibilities

- 1) Manage the AMSO, assigned staff, and associated budgets (i.e. travel, training, awards, salaries, employee relations, recruiting).
- 2) Develop appropriate tools and techniques (such as standard operating procedures) to successfully accomplish the assigned AMSO roles, responsibilities, and functions.
- 3) Seek required expertise from the SC Support Centers to assist the AMSO, as necessary.
- 4) Conduct self-assessments and revise internal AMSO planning and operations, based on results and lessons learned.

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I.A.2 Implementation of Functions and Responsibilities

SC manages its work and operations, including the implementation of Quality Assurance Program (QAP), through the SC Management System (SCMS). The SCMS contains SC's highest-level operating and business processes that translate requirements into information for staff to accomplish their work. The Management System Description within SCMS establishes specific requirements and line management's responsibilities for implementation of those requirements throughout SC. All SC employees including AMSO staff are responsible to meet basic qualifications for their assigned position and to execute their responsibilities in accordance with applicable requirements as identified and assessed within the Management System Descriptions and their implementing subject areas and procedures. SCMS Management Systems cover all aspects of SC operations and applicable facility life – cycle phases including design, construction, operation, and decontamination and decommissioning.

I.A.2.1 Graded Approach

A graded approach was used in developing the AMSO QAPD as well as other AMSO management system documents and procedures. The philosophy of a graded approach is that the level of rigor and formality of controls applied to a particular activity or process is commensurate with its importance to safety, quality, cost, schedule, and success of the program. This philosophy guides the selection of what activities, functions, and processes are governed by the AMSO QAPD; then it guides the scope, depth, rigor, and level of formality of the controls and management system documents/procedures by which the function, activity, or process is performed.

Functions, activities, or processes that, 1) are important to the successful accomplishment of AMSO's mission; 2) are complex (e.g., comprised of numerous steps and/or multiple interfaces); and 3) need to be accomplished in accordance with a consistent methodology each time it is carried out; are governed through the AMSO QAPD and other AMSO management system documents/procedures. The final determinations of which functions, activities, and processes of AMSO that meet these conditions are made by the AMSO Manager. The AMSO Manager is ultimately responsible and accountable for the successful performance of all AMSO responsibilities, functions, objectives, and mission.

Factors that are considered when determining the selection of controls to be applied to a particular work process include:

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- 1) the relative importance to safety and health, and the protection of the environment, quality, and/or site security;
- 2) the magnitude of any hazards or risk involved;
- 3) the life-cycle stage of the facility
- 4) the impact/consequences on programmatic mission;
- 5) the particular characteristics of an activity, process, or facility;
- 6) the hazard category of the activity, item, or facility;
- 7) the complexity of the process or activity;
- 8) history of problems related to the process, activity, or facility

The varying degrees of rigor of controls applied are dependent upon function, complexity, consequence of failure, repeatability of results, and economic considerations. Risk of potential negative impacts or loss (e.g., safety, environmental, project completion, financial, public confidence) is a fundamental consideration in determining to what extent controls need to be applied. Risk considers both the probability and likelihood of a problem occurring and the magnitude of the potential consequences should the problem occur.

I.A.2.2 Organization

The AMSO is responsible for the oversight of the Ames Laboratory contract, Ames Laboratory facilities, and Ames Laboratory programs. These responsibilities have been used to develop the organizational structure within the AMSO. They provide the link between the AMSO organization and the AMSO mission, and they provide the basic structure for developing the Ames Laboratory contract performance measures and performance evaluations. The AMSO Manager, who reports to the SC, DDFO (SC-3), at HQ, leads the AMSO. The AMSO Staff is comprised of a Laboratory Management Specialist with Contracting Officer responsibilities, a Facility Representative and an Administrative Support staff member. An extensive CH matrix support team of functional area experts supports the office. Attachment 2 is the AMSO and Matrix Support Team Organization Chart. The AMSO Manager has the responsibility for the AMSO Quality Assurance Program.

When CH matrix support assists AMSO in meeting its mission, three protocols on matrix staff are followed. At the time that CH Matrix support is requested by AMSO, the need for the support is defined and any specific requirements for the support are followed, depending upon the work process:

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- 1) The specific SCMS and AMSO management system document/procedure, appropriate to the assigned work, is followed by both the AMSO staff and CH matrix support staff;
- 2) CH matrix support staff utilize their own internal office management system with appropriate coordination with AMSO staff (e.g., real property, safeguards and security); or
- 3) AMSO and CH matrix support staff follow appropriate guidance from the requestor of the support in the absence of formalized procedures.

Generally, CH matrix support staff members are expected to take the initiative within their respective areas of responsibility and work with the Ames Laboratory on program issues while keeping the AMSO Manager and/or permanent staff informed of the activities.

B. PERSONNEL TRAINING AND QUALIFICATION

Criterion 2 – Personnel Training and Qualification.

- (a) Train and qualify personnel to be capable of performing assigned work.
- (b) Provide continuing training to personnel to maintain job proficiency.

The AMSO Manager establishes qualification requirements for each position within the AMSO. These qualification requirements are documented in the position description (PD) and are updated as necessary. AMSO uses standard DOE and Office of Personnel Management processes to hire persons qualified to perform their jobs.

AMSO staff members are provided training on DOE-specific and/or site/facility-specific topics necessary for them to perform their assigned positions, but that they could not be expected to have acquired through prior formal education or work experience. Training is also provided to enable an employee to handle new, added or modified job tasks, and to enable the maintenance of competency within their technical discipline. Such training may be delivered through mentoring and on-the-job training, or professional-level training courses, or through classes offered by colleges/universities. The training needs and goals are documented for each AMSO employee in an Individual Development Plan (IDP), developed jointly by the employee and his/her supervisor. The documentation is in the web-based Corporate Human Resource Information System (CHRIS). The IDPs are reviewed and updated periodically to ensure each employee's competencies are being attained and associated training needs are being addressed.

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AMSO technical employees whose positions require them to provide management direction and oversight that could impact the safe operations of Ames Laboratory are under the *SC Technical Qualification Program (TQP)* and its associated management systems in addition to having IDP's. Attainment of oversight skills by AMSO employees is addressed in the 1) SC Oversight Skills Subject Area of the SC Management System Description: Quality Assurance and Oversight; 2) the CH-ISC Technical Qualification Program Description dated August 2008 (includes concurrence of participating SC Site Offices); and 3) the AMSO Standard Operating Procedure (SOP-9): Training and Personnel Development. These documents address the process used for qualification and subsequent re-qualification of the AMSO staff.

The TQP also addresses the requirement of DOE O 226.1A (Section 5) that field element managers maintain appropriate qualification standards for personnel with oversight responsibilities including clear, unambiguous lines of authority and responsibility for oversight.

The position of Laboratory Management Specialist/Contracting Officer also requires on-going professional training. DOE Order 360.1A "Acquisition Career Development Program" requires 80 hours of continuous learning/continuing education every two years. The purpose of the training is 1) staying current in acquisition-related functional areas, 2) completing mandatory and assignment specific training and 3) completing desired training and participating in cross training.

The management processes used by AMSO for the above personnel training and qualification activities are CH-wide processes that are conducted by the Human Resources Services (HRS) of CH. HRS maintains the training and qualification records. The training records are stored in CHRIS workflow (Training). Qualification records are maintained in HRS.

C. QUALITY IMPROVEMENT

Criterion 3 – Quality Improvement.

- (a) Establish and implement processes to detect and prevent quality problems.
- (b) Identify, control, and correct items, services, and processes that do not meet established requirements.
- (c) Identify the causes of problems, and include prevention of recurrence as a part of corrective action planning.

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- (d) Review item characteristics, process implementation, and other quality-related information to identify items, services, and processes needing improvement.

AMSO conducts a variety of quality **improvement** processes. Results of efforts to improve efficiency or quality of work are implemented. **Feedback** occurs from these efforts to improve work. Results of these efforts are communicated to AMSO and Laboratory staff and are used to improve the operation of Ames Laboratory. These include the following:

- a) Weekly staff meetings between the AMSO Manager and AMSO staff to discuss AMSO issues and priorities.
- b) The AMSO Manager participates in a weekly conference call with all SC Site Office Managers including the SC Integrated Service Center (Chicago and Oak Ridge). The SC DDFO (SC-3) participates in these calls on a bi-monthly basis. The AMSO Manager also participates in the SC quarterly Site Office Managers' meeting. Additionally, the AMSO Manager meets monthly with the SC DDFO.
- c) The Contracting Officer oversees DOE's contract with ISU. Works with AMSO staff in developing appropriate QA and oversight related expectations, and performance objectives and measures, for inclusion in the Performance Evaluation Management Plan (PEMP) for Ames Laboratory. Directs Ames Laboratory to report on progress toward meeting performance targets summaries and selected functional area self assessments explained in the fiscal year PEMP. The DOE Under Secretary approves SC site office PEMPs. Continuous improvement is driven through staff comments on: contractual performance measures revisions;
- d) AMSO conducts mid-year and end-of-year reviews of Ames Laboratory performance. These reviews are documented and provide a list of issues concerning Ames Laboratory performance.
- e) The AMSO Manager prepares an Annual Performance Plan (APP), which establishes the performance expectations, organizational goals, objectives, measures and commitments for the Site Office for the upcoming year. The SC DDFO provides direction to AMSO for the annual plan.
- f) The AMSO Manager directs the performance of an annual Self-Assessment. The assessment is performed against the goals, objectives, commitments delineated in that year's APP and documents the self-assessment in the AMSO Annual Assessment Report (AAR).
- g) Frequent discussions/conference call meetings are conducted between the AMSO Staff and their respective counterparts within Ames Laboratory. For example, the AMSO Facility Representative discusses issues on a routine basis with the Ames Laboratory Environment, Safety Health and Quality Assurance (ESH&A) Director.
- h) AMSO conducts an annual Federal Managers' Financial Integrity Act (FMFIA) summary management review. The review includes an examination of the

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internal management controls at Ames Laboratory and within the AMSO; and determines whether those controls are adequate or if any issues need corrective action.

- i) AMSO conducts an annual ISM assessment in order to verify that the AMSO and Ames Laboratory ISM systems are maintained and any improvements identified. The assessment is conducted as part of the contract self-assessment process.
- j) The AMSO Manager conducts periodic meetings with the Ames Laboratory Management.

While conducting their various work activities, the AMSO staff (or CH matrix support staff) may detect problems that require correction or conditions that merit improvement in the AMSO processes and procedures. Such problems or conditions are brought to the attention of the AMSO Manager who evaluates the identified problem or condition (using the graded approach), and determines if further action is needed. Responsibility is assigned at an appropriate level within the AMSO. Each AMSO staff member will manage his/her own internal corrective actions and track corrective actions to completion consistent with SCMS Quality Assurance and Oversight Management System, Issues Management Subject Area and AMSO SOP-19: Corrective Action Tracking. If the corrective action requires a new AMSO procedure or revision of an existing AMSO procedure, then the appropriate assignments will be made. AMSO SOP-1: Standard Operating Procedure System is followed when developing or revising AMSO procedures.

AMSO staff members monitor quality-related information regarding their functional areas, including the execution of requirements for their functional areas at Ames Laboratory, from many sources. This includes accident investigations, non-compliance tracking systems, and occurrence reports. Adverse trends, opportunities for improvement, lessons learned and best practices can be identified through evaluation of such information. In such instances, the identified adverse trend, opportunity for improvement, lessons learned, or best practice is brought the attention of the AMSO Manager, as appropriate. The Facility Representative receives daily complex-wide occurrence Report Summaries and shares information as appropriate. Within AMSO, the Facility Representative evaluates the adverse trend, opportunity for improvement, lessons learned, or best practice, and determines if further action is needed (which would be implemented through the corrective action process described above) and/or communicated to other DOE organizational elements as lessons learned sharing. The AMSO currently uses the Science Management Actions and Records Tracking (SMART) web-based application to track corrective actions to completion. SMART enhances action and item management.

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D. DOCUMENTS AND RECORDS

<p><u>Criterion 4 – Documents and Records.</u></p> <p>(a) Prepare, review, approve, issue, use, and revise documents to prescribe processes, specify requirements, or establish design.</p> <p>(b) Specify, prepare, review, approve, and maintain records.</p>

AMSO is subject to DOE-wide requirements and processes delineated in the DOE Directives System, the Code of Federal Regulations (CFR), Federal Acquisition Regulations (FAR), and DOE Acquisition Regulations (DEAR). Those documents are prepared, reviewed, approved and issued through DOE-wide mechanisms controlled by DOE HQ Office of Management. The SCMS provides procedures that prescribe processes and specify requirements that all SC Site Offices must follow.

The documents that comprise the AMSO management systems include the SCMS Management System (<http://scms.sc.doe.gov/>), AMSO Annual Performance Plan, DOE directives, AMSO Functions, Responsibilities and Authorities Manual (FRAM) which is contained in AMSO SOP-4, this AMSO QAPD, AMSO Operational Awareness Program Description and other AMSO SOPs. The AMSO Manager controls the AMSO procedures. AMSO has established read-only shared directories on the CH computer network. This shared directory is the source for controlled copies of the AMSO SOPs. Records furnish evidence that processes were accomplished; requirements were met, etc., and provide evidence of the quality of items and/or activities affecting quality. SOPs are stored on the CH/AMSO shared drive and only certain individuals have privileges to make changes to those files. Additionally, access to the shared drive is granted by the AMSO Manager and executed by the CH Help Desk.

Hard copies of reviews, assessments, etc. are stored in filing cabinets in the AMSO area. A list is kept which documents the major categories of general administrative information that is stored in those files.

Procedures are developed to guide the performance of the AMSO work processes. AMSO procedures are developed if they meet each of the following criteria and if the site office process is not already addressed in SCMS: (1) the output/product of the work process is critical to the accomplishment of the AMSO's mission; (2) the work process is complex, consisting of multiple independent steps and/or involving multiple interfaces, and (3) the activity needs to be done according to a consistent process each time it is carried out. Procedures include the scope and applicability of the procedure; requirements governing the work; the steps of the process; appropriate responsibilities, authorities, and interfaces associated with the process;

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information/data collection needs related to the process; records generation resulting from the process; and reference documents for the process. The preparation and revision of the AMSO procedures is controlled through AMSO SOP-1: Standard Operating Procedure (SOP) System. The AMSO Manager approves all AMSO SOPs and significant revisions to the SOPs. Work processes that are relatively simple need not be controlled using a formal procedure. Unique tasks (not expected to be repeated) may be guided using instructions from the AMSO Manager rather than controlled through formal procedures. The determination as to whether an activity or process needs to be governed through a formal procedure is made jointly by the AMSO staff member and the AMSO Manager.

DOE and the federal government as a whole have identified record retention requirements in the CFR and in DOE directives. AMSO follows these directives and the SC Management System Description: Records Management.

II. PERFORMANCE

A. WORK PROCESSES

Criterion 5 – Work Processes.

- (a) Perform work consistent with technical standards, administrative controls, and hazard controls adopted to meet regulatory or contract requirements using approved instructions, procedures, etc.
- (b) Identify and control items to ensure their proper use.
- (c) Maintain items to prevent their damage, loss, or deterioration.
- (d) Calibrate and maintain equipment used for process monitoring or data collection.

Work at the AMSO office does not involve work that includes hazards beyond those encountered in normal office environments. However, when an AMSO staff visits Ames Laboratory to provide assessment and/or assistance, they sometimes must perform work in the presence of the same hazards encountered by the contractor. In such situations, the AMSO staff must adhere to the Laboratory's hazard identification, analysis, and mitigation processes.

Work processes conducted by the AMSO in support of the Annual Performance Plan (APP) (including protection of the environment, protection of the health and safety of the public and workers, site security, and facility infrastructure needs) are generally performed in accordance with SCMS and AMSO procedures/instructions. The procedures/ instructions describe the scope and applicability of the work process, the steps of the work process, responsibility and authority assignments for carrying out

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the process, qualifications necessary for the work, and how the results of executing the process are documented. The work processes, and their documentation in procedures/instructions, are established using the graded approach, in which the rigor of the process and level of detail of its documentation is commensurate with the complexity and importance of the work process.

The AMSO Functions, Responsibilities and Authorities Manual (FRAM) establishes the line safety management functions and defines the lines of authority for the AMSO. The FRAM (AMSO SOP-4) identifies the specific responsibilities and the authorities assigned to AMSO from SC for compliance with the DOE Order requirements. CH has a separate FRAM which is maintained by Safety, Technical and Infrastructure Services (STI)/Safety and Technical Services (STS).

The DOE AMSO Operational Awareness Program Description describes the AMSO roles and responsibilities, as well as, the requirements to monitor ongoing AMSO work, ensuring performance issues are identified and addressed, and clearly communicating DOE's expectations regarding ES&H and mission performance.

The functions (listed in Section I.A of this QAPD) and responsibility for performing those functions are assigned to either the Facility Representative or the Laboratory Management Specialist; or in some cases matrix support. Procedures/instructions are developed, as appropriate, to implement these various functions.

The AMSO general management/administrative work processes include:

- Standard Operating Procedure (SOP) System - SOP-1
- Directives Distribution and Implementation - SOP-7
- Emergency Management for Ames Laboratory (Including Security) - SOP-13
- Self Assessments - SOP-20
- Quality Assurance Program Description
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The AMSO ES&H work processes include:

- Operational Awareness Program Description
- Functions, Responsibilities and Authorities Manual - SOP-4
- Facility Representative Program - SOP-5
- Occurrence Reporting - SOP-6
- National Environmental Policy Act (NEPA) - SOP-8
- Assessments of Laboratory Management Systems - SOP-12
- Lessons Learned Implementation - SOP-18
- Corrective Action Tracking - SOP-19
- Self Assessments - SOP-20
- Stop Work Actions at Ames Laboratory - SOP-21

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The AMSO infrastructure and project/program management work processes include:

- Project Completion and Close-out - SOP-10

The AMSO business management work processes include:

- Implementation of the Contractor Performance-Based Management Process - SOP-14
- Development of Performance Measures and System Assessment Measures - SOP-14A
- Execution of the Performance Assessment Plan - SOP-14B
- Final Evaluation and Reporting of Contractor's Performance - SOP-14C
- Freedom of Information Act (FOIA) Requests - SOP-15
- Technology Transfer - SOP-16 (includes Human Subjects Research Requirements)
- Work for Others (Non-DOE Funded Work) - SOP-17 (includes Human Subjects Research Requirements)
- Corrective Action Tracking - SOP-19
- Self Assessments - SOP-20

The AMSO will review and revise, as appropriate, the AMSO SOPs, at least once every three years or as needed

AMSO utilizes an SC-wide Integrated Assessment Schedule (IAS) to plan, schedule, and assign resources to formal oversight/assessment activities. The schedule is established on a three-year cycle and is updated annually, providing a three-year "rolling" assessment schedule. AMSO plans and schedules oversight activities to assess the adequacy and effectiveness of contractor performance in all critical scientific, operational, and business management areas.

The AMSO Manager relies upon technical expertise within the organization as well as matrix support from the CH ISC to accomplish the assigned line oversight activities of all laboratory work processes.

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B. DESIGN

Criterion 6 – Design.

- (a) Design items and processes using sound engineering/scientific principles and appropriate standards.
- (b) Incorporate applicable requirements and design bases in design work and design changes.
- (c) Identify and control design interfaces.
- (d) Verify/validate the adequacy of design products using individuals or groups other than those who performed the work.
- (e) Verify/validate work before approval and implementation of the design.

The AMSO does not perform the design of components, systems, processes, or facilities. Design work for the Ames Laboratory site is controlled under the Ames Laboratory Quality Assurance Program. AMSO performs oversight of Ames Laboratory's program.

C. PROCUREMENT

Criterion 7 – Procurement.

- (a) Procure items and services that meet established requirements and perform as specified.
- (b) Evaluate and select prospective suppliers on the basis of specified criteria.
- (c) Establish and implement processes to ensure that approved suppliers continue to provide acceptable items and services.

The AMSO is responsible for the Ames Laboratory contract. Extend/complete actions of the AMSO contract will be done in accordance with DOE requirements. Ames Laboratory is evaluated to ensure acceptable services and items are provided through AMSO oversight of Ames Laboratory operations and facilities.

AMSO requisitions office supplies and office equipment, personnel safety supplies and equipment, and support services, through CH-wide procurement services (including E-CWeb) as provided by CH-Office of Management Analytical and Administrative Services (MAAS). AMSO does not procure items or services using processes outside of those managed by CH-MAAS.

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D. INSPECTION AND ACCEPTANCE TESTING

Criterion 8 – Inspection and Acceptance Testing.

- (a) Inspect and test specified items, services, and processes using established acceptance and performance criteria.
- (b) Calibrate and maintain equipment used for inspections and tests.

AMSO does not produce hardware items. Therefore, AMSO does not normally conduct inspection and acceptance testing of items or services; however, AMSO performs contractor oversight to ensure the contractor's processes are conducted using established acceptance and performance criteria.

AMSO may perform limited calibration or maintenance of equipment used for inspections and tests as defined by DOE O 414.1C, but in general uses contractor-calibrated measuring and test equipment on an as-needed basis. AMSO performs contractor oversight to ensure the contractor's equipment used for inspections and tests are calibrated and maintained.

Some AMSO tasks include the production of documentation and/or records, such as plans, procedures, and reports. AMSO management, consistent with SCMS establishes expectations for these services, conveys the expectations to the staff, and checks the staff's work prior to delivering services to SC.

III. ASSESSMENT

A. MANAGEMENT ASSESSMENT

Criterion 9 – Management Assessment.

Ensure that managers assess their management processes and identify and correct problems that hinder the organization from achieving its objectives.

The AMSO Manager prepares the APP, which establishes the performance expectations, organizational goals, objectives, measures and commitments for the Site Office for the upcoming year. The SC DDFO provides direction to AMSO for the annual plan. The APP is prepared consistent with SCMS Quality Assurance and Oversight Management System, SC Performance Planning and Evaluation Subject Area, **Procedure 1: *Preparing and Reviewing the SC Annual Performance Plan.*** Feedback from the review of APPs and evaluation of AMSO Annual Assessment Report (AAR) facilitate consistency and drive continuous improvement of AMSO performance. The AAR is prepared consistent with SCMS Quality Assurance and

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Oversight Management System, SC Performance Planning and Evaluation Subject Area, **Procedure 2: *Preparing and Reviewing the Annual Assessment Report***. The SC Deputy Director for Field Operations evaluates AMSO oversight performance based on a review of the APPs, AARs, SC HQ directed reviews, and applicable external reviews.

The APP references the Integrated Assessment Schedule, which contains the office's assessment activities planned for the next three years. This includes any management assessments of the Site Office that are scheduled. Follow-up actions are tracked in the APP and SMART. Results of the AMSO assessments are communicated to the AMSO staff. When applicable, a follow-up evaluation of corrective actions, is conducted to determine if the corrective actions have been effective.

The AMSO Manager directs the performance of a periodic management self-assessment of the AMSO organization's operations. The purpose of the assessment is to evaluate the AMSO performance against the functions, goals, and requirements set forth in the AMSO management system documents (e.g., AMSO Performance Plan,) to identify areas of performance in need of improvement. The management self-assessment also may identify the need to update/change the AMSO management system documents.

AMSO conducts and documents self-assessments consistent with the requirements in the SCMS Quality Assurance and Oversight Management System, Assessments, Subject Area: Assessments, **Procedure 2: *Performing Assessments*** and AMSO SOP-20: Self-Assessments.

In preparation for this self-assessment the AMSO Manager develops, as needed, a Management Assessment Plan for the AMSO consistent with AMSO SOP-20. The self-assessment plan identifies the scope of the assessment, the criteria or standards for comparing AMSO performance, and any issues that need to be covered by the self-assessment. Included in this self-assessment will be a follow-up evaluation of corrective actions, identified as part of the quality improvement process, to determine if the corrective actions have been effective. As deemed necessary by the AMSO Manager, corrective and improvement actions are developed for problems and conditions meriting improvement that were identified by the management self-assessment. Tracking of the actions is performed by AMSO staff, as assigned, utilizing the SMART system. Results of the AMSO self-assessment are communicated to the AMSO staff.

Each fiscal year, AMSO conducts a Federal Managers' Financial Integrity Act (FMFIA) summary management review. This review is performed in conformity with Departmental guidelines and includes a review of whether AMSO management controls are in compliance with the underlying management principles which incorporate the General Accounting Office's Standards for Internal Controls in the

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Federal Government. The review includes the consideration of the results of audit reports, internal management reviews, and assurances from Ames Laboratory, and all other pertinent information. In addition, the review considers the issues of (1) environmental management, (2) nuclear safety management, (3) non-nuclear safety management, (4) safeguards and security, and (5) other relevant issues. The results of the review indicate if there is (is not) reasonable assurance that the management controls were working effectively and that program and administrative functions were performed in an economical and efficient manner consistent with applicable laws; property, funds and other resources were safeguarded against waste, loss, unauthorized use or misappropriation; obligations and costs were proper; and accountability for assets was maintained. The FMFIA process provides input for preparation of the annual self-assessment plan.

Every three years the AMSO will perform a self-assessment of the AMSO Facility Representative Program.

Other management assessments may be scheduled at AMSO as determined necessary by the AMSO Manager.

B. INDEPENDENT ASSESSMENT

Criterion 10 – Independent Assessment.

- (a) Plan and conduct independent assessments to measure item and service quality, to measure the adequacy of work performance, and to promote improvement.
- (b) Establish sufficient authority and freedom from line management for independent assessment teams.
- (c) Ensure that persons conducting independent assessments are technically qualified and knowledgeable in the areas assessed.

At least once every three years, the AMSO Manager shall select a work process within the office and commission an independent assessment of that work.

Independent assessments will generally be used to target critical elements of the AMSO QA program. Duplication of effort is not encouraged and the review of the complete QA program may be performed in increments. Credit for independent reviews can be obtained from a variety of sources. For example, the DOE-HQ Office of Security and Safety Performance Assurance, the DOE-HQ SC, the DOE-HQ Office of Environment, Safety, and Health, as well as, other DOE-HQ Program or support offices may conduct reviews of all or portions of the AMSO QA program.

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If the AMSO Manager sponsors the independent assessment, the AMSO Manager selects a team leader for the assessment. The assessment team leader should have demonstrated competence and experience in leading assessment teams. The assessment team leader is responsible for assembling a team of reviewers appropriate for covering the established assessment scope within the allotted assessment duration. The team members, including the team leader, must have the appropriate expertise to cover the assessment scope. The AMSO Manager should ensure that the assessment team leader and all team members have sufficient independence from AMSO to accomplish a fair and unbiased review. The AMSO Manager will concur with the assessment team leader on the composition of the assessment team.

The assessment team leader is responsible for preparing an assessment plan that addresses the scope and criteria established by the AMSO Manager. The plan documents the assessment approach. The team leader and team members develop lines of inquiry for the assessment's personnel interviews and document/records reviews. The results of the independent assessment are documented in a report submitted to the AMSO Manager. Corrective and improvement actions, including schedules and responsibility assignments for their implementation, are developed by AMSO for the problems and conditions meriting improvement identified by the independent assessment.

If DOE-HQ (including the DOE-HQ Program Offices) sponsor an independent assessment of AMSO, then the AMSO Manager will cooperate with the assessment team leader to ensure that resources are allocated to the assessment and required documents are provided. The AMSO Manager will review and comment on the draft assessment report, as appropriate and develop corrective actions, as required. The AMSO Manager will ensure that corrective actions are implemented and progress against the corrective actions is tracked.

If corrective actions are required to resolve safety issues arising from findings identified by the DOE-HQ Office of Health Safety and Security (Office of Independent Oversight HS-60), judgments of need identified by Type A accident investigations, findings identified by the Office of Aviation Management or other sources as directed by the Secretary or Deputy Secretary, including crosscutting safety issues, AMSO will follow the Corrective Action Management Program outlined in Attachment 4 to DOE O 414.1C. Any corrective actions will be tracked and reported in the DOE Corrective Action Tracking System (CATS).

All other independent assessments and their corrective actions are tracked by AMSO to completion in AMSO SMART.

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IV. OTHER REQUIREMENTS

A. Software Quality Assurance

AMSO has line responsibility for ensuring that safety software in nuclear facilities performs its intended safety functions (refer to DOE O 414.1C, Attachment 5) at Ames Laboratory. AMSO makes limited, if any, use of software for the design of or review of the safety basis for nuclear facilities. Any software intended for such use would first be reviewed by persons competent in the field of software quality assurance and nuclear safety engineering to ensure that all the current DOE software quality assurance requirements are met. AMSO periodically assesses the effectiveness of the Ames Laboratory safety software Quality Assurance processes.

For its own server and computer maintenance and upgrades, AMSO relies solely on the services received under a subcontract managed by the CH ISC. All software used at AMSO under this contract is expected to meet applicable software quality assurance requirements, as established in multiple DOE and federal information management rules, directives, and orders.

B. Management of Suspect or Counterfeit Items (SCI)

AMSO has line responsibilities and authorities related to suspect/counterfeit items (S/CI) prevention (refer to DOE O 414.1C, Attachment 3) at Ames Laboratory. AMSO maintains awareness of SCI found at Ames Laboratory through the Occurrence Reporting and Processing System (ORPS). AMSO keeps Ames Laboratory staff informed of training, lessons learned (DOE or external organizations) and relevant ORPS reports from other sites pertaining to S/CI. When conducting walkthroughs at Ames Laboratory, the Facility Representative includes S/CI inspections where appropriate. AMSO assesses the adequacy of these programs when conducting Quality Assurance assessments.

V. REFERENCES

- A. SC Management System Description: "*Quality Assurance and Oversight*", June 19, 2008 and it's implementing subject areas and procedures
- B. Program Description: "*SC-Wide Quality Assurance Program Description*", April 1, 2008
- C. 10 CFR 830, Subpart A, "*Quality Assurance Requirements*", dated January 10, 2001
- D. ANSI/ISO/ASQ Q9001-2000, "*American National Standard, Quality Management Systems – Requirements*", dated December 13, 2000

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- E. DOE G 414.1-1A, *“Management Assessment and Independent Assessment Guide”*, dated May 31, 2001
- F. DOE G 414.1-2A, *“Quality Assurance Management System Guide for Use with 10 CFR Part 830, Subpart A; and DOE O 414.1C, Quality Assurance”*, dated June 17, 2005
- G. DOE G 414.1-3, *“Suspect/Counterfeit Items Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1B, Quality Assurance”*, dated November 3, 2004
- H. DOE G 414.1-4, *“Safety Software Guide for Use with 10 CFR 830 Subpart A, Quality Assurance Requirements, and DOE O 414.1C, Quality Assurance”*, dated June 17, 2005
- I. DOE G 414.1-5, *“Corrective Action Program Guide”*, March 2, 2006
- J. DOE G 450.4-1B, *“Integrated Safety Management System Guide”*, dated March 1, 2001
- K. DOE M 426.1-1A, *“Federal Technical Capability Manual”*, dated May 18, 2004
- L. DOE O 200.1, *“Information Management Program”*, dated September 30, 1996
- M. DOE O 210.2, *“DOE Corporate Operations (includes lessons learned)”*, dated June 12, 2006
- N. DOE O 226.1, *“Implementation of Department of Energy Oversight Policy”*, dated September 15, 2005
- O. DOE O 413.1A, *“Management Control Program”*, dated April 18, 2002
- P. DOE O 361.1A, *“Acquisition Career Development Program”*, dated April 19, 2004
- Q. DOE O 413.3, *“Program and Project Management for the Acquisition of Capital Assets”*, dated October 13, 2000
- R. DOE O 414.1C, *“Quality Assurance”*, dated June 17, 2005
- S. DOE P 226.1, *“Department of Energy Oversight Policy”*, dated June 10, 2005
- T. DOE P 411.1, *“Safety Management Functions, Responsibilities, and Authorities”*, dated January 28, 1997
- U. DOE P 450.4, *“Safety Management System Policy”*, dated October 15, 1996
- V. DOE P 450.7, *“Environment, Safety and Health (ESH) Goals”*, dated August 2, 2004
- W. DOE-STD-7501-99, *“The DOE Corporate Lessons Learned Program”*, dated December 1999
- X. ISO 9001-2000, *“Quality Management Systems – Requirements”*

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VI. ACRONYMS

A. AMSO	Ames Site Office
B. APP	Annual Performance Plan
C. AAR	Annual Assessment Report
D. CATS	Corrective Action Tracking System
E. DEAR	Department of Energy Acquisition Regulation
F. DDFO	Deputy Director Field Operations
G. DOE	Department of Energy
H. FAR	Federal Acquisition Regulation
I. HS	Office of Independent Oversight (HS-60),
J. ISM	Integrated Safety Management
K. ISMS	Integrated Safety Management System
L. MOU	Memorandums of Understanding
M. ORPS	Occurrence Reporting and Processing System
N. PEMP	Performance Measurement and Evaluation Plan
O. QA	Quality Assurance
P. QAPD	Quality Assurance Program Description
Q. SA	Service Agreements
R. S/CIs	Suspect/Counterfeit Items
S. SCMS	Office of Science Management System
T. SMART	Science Management Action and Record Tracking
U. SOP	Standard Operating Procedure
V. STD	Standard

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VII. DEFINITIONS

- A. **Assessment** – A review, evaluation, inspection, test, check, surveillance, or audit to determine and document whether items, processes, systems, or services meet specified requirements and perform effectively.
- B. **Annual Assessment Report (AAR)** - report prepared by the Manager of Field Office, including Site Offices, which documents that Office's management assessment of its performance against the goals/objectives/commitments delineated in that year's Annual Performance Plan.
- C. **Annual Performance Plan (APP)** - A plan prepared by the Manager of Field Office, including Site Offices, which establishes the performance expectations, organizational goals, objectives, measures, and commitments for that office for the upcoming year.
- D. **Directive** – Written information originated by DOE Headquarters or AMSO that assigns responsibilities or establishes requirements. The Headquarters directives include DOE Policies, Orders, Notices, Manuals, Guides, Technical Standards, and Secretary of Energy Notices. AMSO directives include Orders, Notices, Manuals, Guides, Standard Operating Procedures and Program Descriptions.
- E. **Document** – Any written or pictorial information describing, defining, specifying, reporting, or certifying activities, requirements, procedures, or results. A document is not considered to be a quality assurance record as defined in this document.
- F. **Graded Approach** – The process of ensuring that the levels of analyses, documentation, and actions used to comply with requirements are commensurate with -
- the relative importance to safety, safeguards, and security;
 - the magnitude of any hazard or risk involved;
 - the life-cycle stage of a facility or item;
 - the programmatic mission of a facility;
 - the particular characteristics of a facility or item;
 - the relative importance to radiological and non-radiological hazards;
 - any other relevant factors.
- G. **Item** – An all-inclusive term used in the place of any of appurtenance, assembly,

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component, equipment, material, module, part, structure, product, software, subassembly, subsystem, system, unit, or support system.

- H. **Line Management** – The unbroken chain of Federal management positions vested with the responsibility and authority for accomplishing those functions, programs and projects necessary for achieving the SC mission. This chain is typically recognized as existing between the Director of Science, through the Deputy Director for Field Operations, to a Field Office Manager, including Site Office Managers. This chain ultimately continues up through the Under Secretary to the Secretary of Energy, and extends down to the management of a contractor or Government-owned, Government-operated facility.
- I. **Procedure** – A document that specifies or prescribes how an activity is to be performed.
- J. **Process** – A series of actions that achieve an end result.
- K. **Qualification** – The knowledge and skills gained through education, learning activities, and experience that, when measured against established qualification standards, ensure that an individual is competent to perform the required functions, duties, and responsibilities of his or her job position.
- L. **Quality** – The condition achieved when an item, service, or process meets or exceeds the user's requirements and expectations.
- M. **Quality Assurance** – All those actions that provide confidence that quality is achieved.
- N. **Quality Assurance Program (QAP)** – The overall program or management system established to assign responsibilities and authorities, define policies and requirements, and provide for the performance and assessment of work.
- O. **Quality Assurance Record** – records that furnish objective evidence of the quality of items, activities, and processes that affect quality. Quality assurance records are established based on regulatory and environmental requirements and the level of risk established for the item, activity, or process to which the records apply.
- P. **Record** – A completed document or other media that provides objective evidence of a service or process.
- Q. **Root Cause** – The fundamental reason which, if corrected, will prevent recurrence of these and similar occurrences throughout the facility or organization.

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- R. **Root Cause Analysis** – Analysis of a condition or event that results in an accurate description of how and why the condition or event was produced.
- S. **Safety Software**: Includes the following.
- (1) Safety System Software. Software for a nuclear facility that performs a safety function as part of a structure, system, or component and is cited in either (a) a DOE approved documented safety analysis or (b) an approved hazard analysis per DOE P 450.4, *Safety Management System Policy*, dated 10-15-96, and the DEAR clause.
 - (2) Safety and Hazard Analysis Software and Design Software. Software that is used to classify, design, or analyze nuclear facilities. This software is not part of a structure, system, or component (SSC) but helps to ensure the proper accident or hazards analysis of nuclear facilities or an SSC that performs a safety function.
 - (3) Safety Management and Administrative Controls Software. Software that performs a hazard control function in support of nuclear facility or radiological safety management programs or technical safety requirements or other software that performs a control function necessary to provide adequate protection from nuclear facility or radiological hazards. This software supports eliminating, limiting, or mitigating nuclear hazards to workers, the public, or the environment as addressed in 10 CFR 830.10, CFR 835, and the DEAR ISMS clause.
- T. **Service** – Work, such as design, construction, fabrication, decontamination, environmental remediation, waste management, laboratory sample analysis, safety software development/validation/testing, inspection, nondestructive examination/testing, environmental qualification, equipment qualification, training, assessment, repair, and installation or the like.
- U. **Science Management Action and Record Tracking (SMART)** – AMSO's database used to track assessments, findings, actions, and closure evidence.
- V. **SC Management System** – The SCMS contains SC's highest-level operating and business processes that translate requirements into information for staff to accomplish their work.
- W. **Software** – Computer programs, procedures, and associated documentation and data pertaining to the operation of a computer system.
- X. **Suspect/Counterfeit Items (S/CIs)** – An item is suspect when inspection or testing indicates that it may not conform to established Government or industry-accepted specifications or national consensus standards or whose

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documentation, appearance, performance, material, or other characteristics may have been misrepresented by the supplies or manufacturer. A counterfeit item is one that has been copied or substituted without legal right or authority or whose material, performance, or characteristics have been misrepresented by the supplier or manufacturer. Items that do not conform to established requirements are not normally considered S/CIs if nonconformity results from one or more of the following conditions (which must be controlled by site procedures as nonconforming items):

- (1) defects resulting from inadequate design or production quality control;
- (2) damage during shipping, handling, or storage;
- (3) improper installation;
- (4) deterioration during service;
- (5) degradation during removal;
- (6) failure resulting from aging or misapplication; or
- (7) other controllable causes.

Y. **Supplier** – Any individual or organization that furnishes services in accordance with a procurement document. This is an all-inclusive term that is used in place of any of the following: vendor, seller, contractor, subcontractor, fabricator, consultant, and their sub-tier levels.

Z. **Training** – The process of providing for/making available to an employee and placing or enrolling the employee in a planned, prepared, and coordinated program, course, curriculum, subject, system, or routine of instruction or education in scientific, professional, technical, mechanical, trade, clerical, fiscal, administrative, or other field that will improve the individual's and organization's performance and assist in achieving DOE's missions and performance goals.

AA. **Work** – The process of performing a defined task or activity; for example, AMSO work is primarily administration, budget execution, oversight, assessment and review activities.

VIII. ATTACHMENTS

Attachment 1: Matrix of DOE O 414.1C, ISO 9001-2001 and ISM Quality Assurance Criteria

Attachment 2: Ames Site Office with Matrix Support Organization

Attachment 3: SC Organization Chart

Attachment 4: Relationship Between AMSO Functions, AMSO Standard Operating Procedures (SOPs) and Other AMSO Documents

Attachment 5: Current Ames Site Office Standard Operating Procedures

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Attachment 1

Matrix of DOE O 414.1C, ISO 9001-2001 and ISM Quality Assurance Criteria

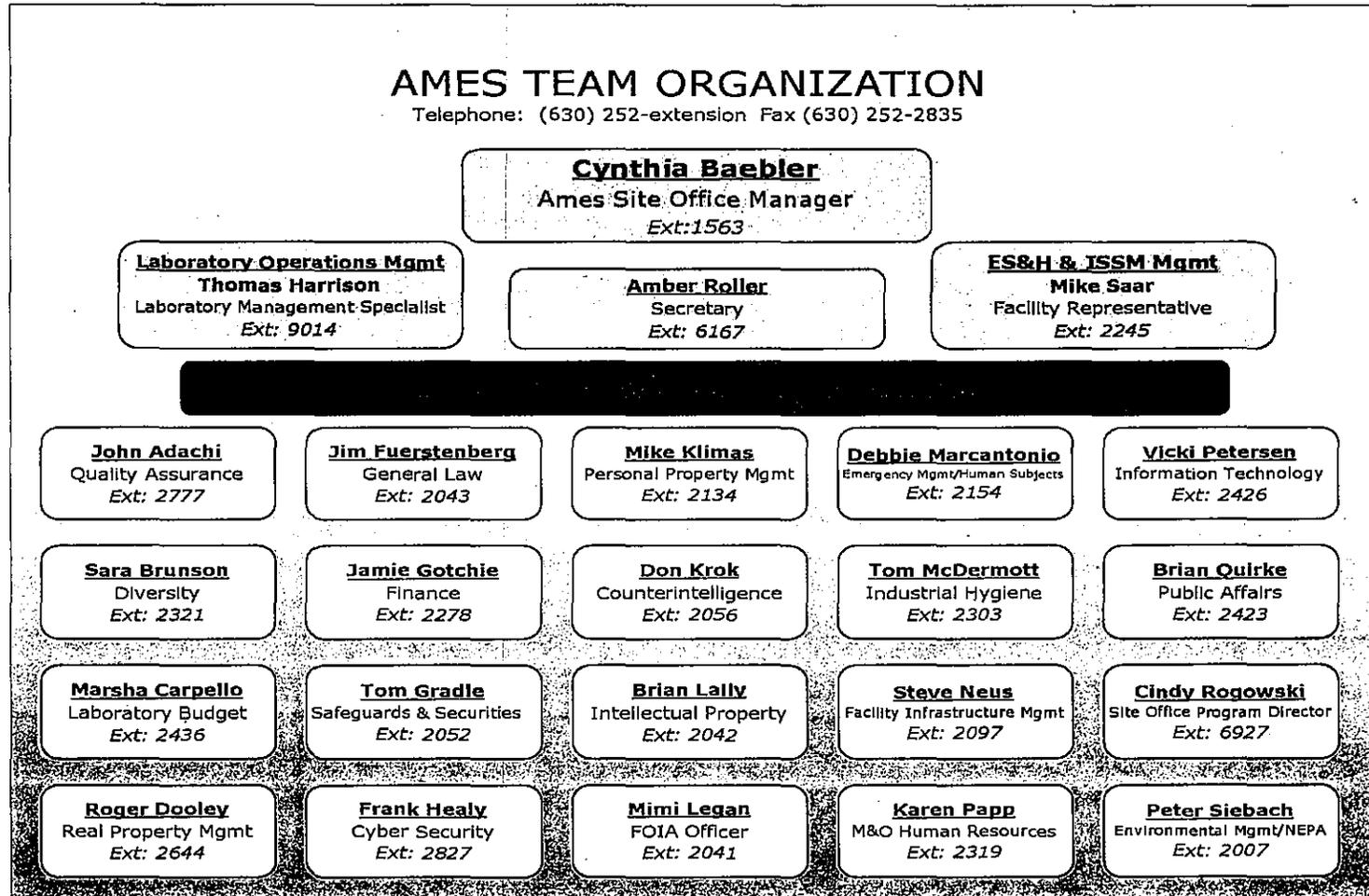
DOE O 414.1C Criteria	ISO 9001-2000 Criteria	Integrated Safety Management
Criterion 1 – Program	All Criteria	<ul style="list-style-type: none"> • Line Management Responsibility for Safety • Clear Roles and Responsibilities
Criterion 2 – Personnel Training and Qualification	Resource Management – Competence, Awareness and Training	Competence Commensurate with Responsibilities
Criterion 3 – Quality Improvement	Measurement, Analysis, and Improvement – all criteria	Feedback and Improvement
Criterion 4 – Documents and Records	<ul style="list-style-type: none"> • Quality Management System – Control of Documents • Quality Management System – Control of Records 	Work Planning
Criterion 5 – Work Processes	<ul style="list-style-type: none"> • Customer Communication – all process – related criteria • Produce Realization – Customer – related processes 	<ul style="list-style-type: none"> • Balanced priorities • Identification of safety standards and requirements • Work Planning • Operations Authorization • Implement hazard controls • Perform Work within Controls
Criterion 6 – Design	Customer Communication – all criteria under Design and Development	<ul style="list-style-type: none"> • Define the Scope of Work • Identification of Safety Standards and Requirements • Analyze Hazards • Hazard Controls Tailored to Work Being Performed • Develop Hazard Controls
Criterion 7 – Procurement	Customer Communication – Purchasing	Identification of Safety Standards and Requirements
Criterion 8 – Inspection and Acceptance Testing	Customer Communication <ul style="list-style-type: none"> • Product Identification and Traceability 	Feedback and Improvement

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	<ul style="list-style-type: none"> • Verification of Purchased Product • Control of Monitoring and Measuring Devices <p>Measurement, Analysis, and Improvement – Control of Nonconforming Product</p>	
Criteria 9 – Management Assessment	<ul style="list-style-type: none"> • Management Responsibility – Management Review of the Quality Management System • Measurement, Analysis and Improvement 	Feedback and Improvement
Criteria 10 – Independent Assessment	<ul style="list-style-type: none"> • Management Responsibility – Management Review of the Quality Management System • Measurement, Analysis, and Improvement 	Feedback and Improvement

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Attachment 2

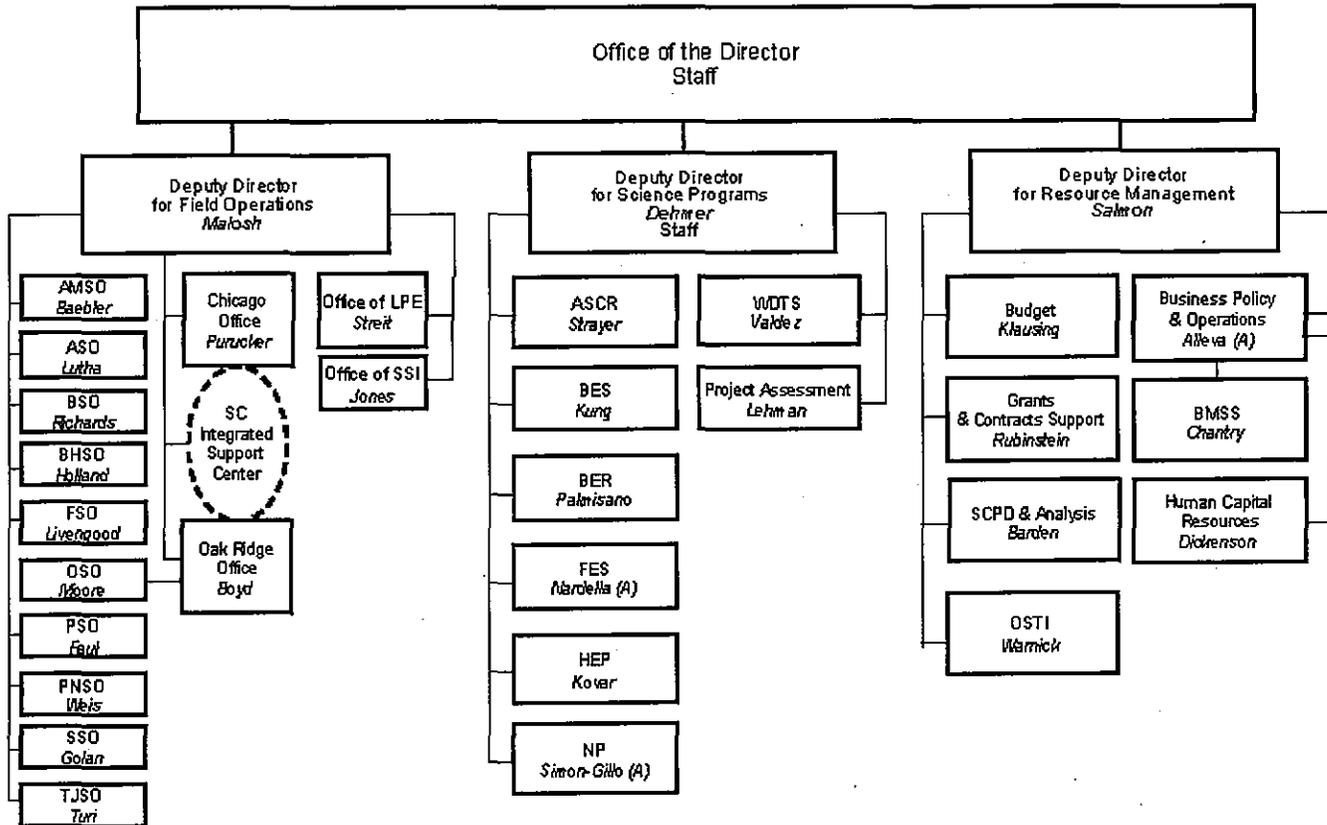


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Attachment 3



OFFICE OF SCIENCE



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Attachment 4

**Relationship Between AMSO's Functions, AMSO Standard Operating
Procedures (SOPs) and Other AMSO Documents**

Note: A list of the SOP's and their titles appears in Attachment 5

Ames Site Office Functions	Ames Site Office SOPs	Other Documents
Serve as the facility owner	SOP-4	AMSO Site Office Annual Performance Plan (APP) AMSO Contract Management Plan
Provide DOE line management oversight for AMSO facilities and activities Develop and maintain an AMSO ES&H program; oversee AMSO ES&H Program; and perform ongoing validation of the AMSO ISM Program	SOP-3 SOP-4 SOP-6 SOP-10 SOP-12 SOP-19 SOP-21	Operational Awareness Program Description AMSO Quality Assurance Program Description
Administer the performance-based contract	SOP-14, 14A,14B, &14C	Performance Evaluation and Measurement Plan (PEMP)
Serve as Contracting Officer and Contracting Officer's Representative for the AMSO contract		DOE O 541.1B
Perform government administrative and business management functions	SOP-1 SOP-4 SOP-7 SOP-8 SOP-9 SOP-15 SOP-16 SOP-17	
Determine applicability of DOE policies and issue direction/guidance	SOP-7	

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Perform infrastructure, project, and facilities and environmental management oversight (including planning and implementation)	SOP-8 SOP-10	AMSO Operational Awareness Program Description
Maintain effective working relationships and communication with DOE-HQ, other groups within DOE, Ames Laboratory, the contractor and appropriate federal, state, county, and local agencies, including regulators		AMSO APP AMSO Contract Management Plan
Conduct community stakeholder and media relations		AMSO APP AMSO Contract Management Plan
Promote world-class research in a safe work environment		AMSO APP/AAR AMSO Contract Management Plan
Develop appropriate tools and techniques (e.g. standard operating procedures) to successfully accomplish assigned mission elements	SOP-1	AMSO APP/AAR AMSO Contract Management Plan
Evaluate AMSO performance and provide periodic feedback and, when necessary, direction to the contractor	SOP-14 SOP-14A, 14B, 14C SOP-20	AMSO APP/AAR AMSO Annual Report
Perform DOE project management responsibilities	SOP-10	DOE O 413.3
Perform DOE program management responsibilities		DOE O 413.3
Integrate competing or conflicting interests, programs, and requirements		AMSO APP AMSO Contract Management Plan
Authorize work	SOP-4 SOP-16 SOP-17	DOE O 541.1B

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Attachment 5

**CURRENT AMES SITE OFFICE
STANDARD OPERATING PROCEDURES**

PROCEDURE #	PROCEDURE TITLE/DATE
AMSO SOP 1	Standard Operating Procedure (SOP) System
AMSO SOP 2	Retired (replaced by "AMSO Quality Assurance Program Description")
AMSO SOP 3	Retired (replaced by Program Document "Operational Awareness Program Description")
AMSO SOP 4	Functions, Responsibilities and Authorities Manual
AMSO SOP 5	Facility Representative Program
AMSO SOP 6	Occurrence Reporting
AMSO SOP 7	Directives Distribution And Implementation
AMSO SOP 8	National Environmental Policy Act
AMSO SOP 9	Training And Personnel Development
AMSO SOP 10	Project Completion and Close-Out
CH-AMES SOP 11	Retired (See Operational Awareness Program Description)
AMSO SOP 12	Assessments of Laboratory Management Systems
AMSO SOP 13	Emergency Management for Ames Laboratory
AMSO SOP 14	Implementation of the Contractor Performance-Based Management Process
AMSO SOP 14A	Development of Performance Measures and System Assessment Measures
AMSO SOP 14B	Execution of the Performance Assessment Plan
AMSO SOP 14C	Final Evaluation and Reporting of Contractor's Performance

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AMSO SOP 15	Freedom of Information Act (FOIA) Requests
CH-AMES SOP 16	Technology Transfer
AMSO SOP 17	Work For Others (Non-Doe Funded Work)
AMSO SOP 18	Lessons Learned Implementation
AMSO SOP 19	Corrective Action Tracking
AMSO SOP 20	Self-Assessments
AMSO SOP 21	Stop Work Actions at Ames Laboratory