



**NOT MEASUREMENT
SENSITIVE**

**DOE-STD-1164-2003
September 2003**

DOE STANDARD

AVIATION SAFETY OFFICER FUNCTIONAL AREA QUALIFICATION STANDARD

DOE Facilities Technical Personnel



**U.S. Department of Energy
Washington, D.C. 20585**

AREA-TRNG

DISTRIBUTION STATEMENT A. Approved for public release; distribution is unlimited.

DOE-STD-1164-2003

This document has been reproduced directly from the best available copy.

Available to DOE and DOE contractors from ES&H Technical Information Services, U.S. Department of Energy, (800) 473-4375, fax: (301) 903-9823.

Available to the public from the U.S. Department of Commerce, Technology Administration, National Technical Information Service, Springfield, VA 22161; (703) 605-6000.

APPROVAL

The Federal Technical Capability Panel consists of senior Department of Energy managers responsible for overseeing the Federal Technical Capability Program. This Panel is responsible for reviewing and approving the Qualification Standard for Department-wide application. Approval of this Qualification Standard by the Federal Technical Capability Panel is indicated by signature below.


Roy J. Schepens
Chairman
Federal Technical Capability Panel

INTENTIONALLY BLANK

CONTENTS

ACKNOWLEDGMENT..... vii

FUNCTIONAL AREA 1

1. PURPOSE.....1

2. APPLICABILITY.....1

3. IMPLEMENTATION.....1

4. EVALUATION REQUIREMENTS.....3

5. CONTINUING EDUCATION, TRAINING, AND PROFICIENCY4

6. DUTIES AND RESPONSIBILITIES.....4

7. BACKGROUND AND EXPERIENCE5

8. REQUIRED TRAINING AND TECHNICAL COMPETENCIES5

APPENDIX A—CONTINUING EDUCATION, TRAINING, AND PROFICIENCY 15

APPENDIX B—COLLATERAL DUTY AVIATION SAFETY OFFICER.....17

INTENTIONALLY BLANK

ACKNOWLEDGMENT

The Offices of Aviation Management and Management, Budget and Evaluation/CFO are the Sponsors for the Aviation Safety Officer Qualification Standard. The Sponsors are responsible for coordinating the development and/or review of the Functional Area Qualification Standard by subject matter experts (SMEs) to ensure that the technical content of the standard is accurate and adequate for Department-wide application for those involved in aviation safety. The Sponsors, in coordination with the Federal Technical Capability Panel, are also responsible for ensuring that the Functional Area Qualification Standard is maintained current.

The following SMEs participated in the development and/or review of this qualification standard:

Randy Stewart	DOE, ME-2.4 (Team Lead)
Robert Jenkins	DOE, ME-2.4
Gerry Bell	DOE, RL
Brian Dean	DOE, AL
Steve Shelt	DOE, SRS
Joseph Ginanni	DOE, NV
Tom Conley	DOE, NV

INTENTIONALLY BLANK

FUNCTIONAL AREA

Aviation Safety Officer

PURPOSE

The Department's Federal Technical Capability Program Policy, issued by the Secretary in December 1998, commits the Department to continuously strive for technical excellence. The Technical Qualification Program, along with the supporting technical Functional Area Qualification Standards, complements the personnel processes that support the Department's drive for technical excellence. In support of this goal, the competency requirements defined in the technical Functional Area Qualification Standards should be aligned with and integrated into the recruitment and staffing processes for technical positions. The technical Functional Area Qualification Standards should form, in part, the primary basis for developing vacancy announcements, qualification requirements, crediting plans, interviewing questions, and other criteria associated with the recruitment, selection, and internal placement of technical personnel. Office of Personnel Management minimum qualifications standards will be greatly enhanced by application of appropriate materials from the technical Functional Area Qualification Standards.

The technical Functional Area Qualification Standards are not intended to replace the U.S. Office of Personnel Management's (OPM) Qualifications Standards nor other Departmental personnel standards, rules, plans, or processes. The primary purpose of the Technical Qualification Program is to ensure that employees have the requisite technical competency to support the mission of the Department. The Technical Qualification Program forms the basis for the development and assignment of DOE personnel responsible for ensuring the safe operation of Departmental facilities.

APPLICABILITY

The Aviation Safety Officer Functional Area Qualification Standard establishes common functional area competency requirements for Department of Energy aviation safety personnel who provide assistance, direction, guidance, oversight, or evaluation of contractor technical activities impacting the safe operation of DOE facilities. The technical Functional Area Qualification Standard has been developed as a tool to assist DOE Program and Field elements in the development and implementation of the Technical Qualification Program in their organization. Satisfactory and documented attainment of the competency requirements contained in this technical Functional Area Qualification Standard ensures that aviation safety personnel possess the requisite competence to fulfill their functional area duties and responsibilities. Office/Facility-Specific Qualification Standards supplement this technical Functional Area Qualification Standard and establish unique operational competency requirements at the Headquarters or Field element, site, or facility level.

IMPLEMENTATION

This technical Functional Area Qualification Standard identifies the technical competency requirements for aviation safety personnel. Although there are other competency requirements associated with the positions held by aviation safety personnel, this Functional Area Qualification Standard is limited to identifying the specific technical competencies. The

DOE-STD-1164-2003

competency statements define the expected knowledge and/or skill that an individual must meet. Each of the competency statements is further explained by a listing of supporting knowledge and/or skill statements. The supporting knowledge and/or skills provide guidance on the level of expectation and rigor to meet the intent of the competency.

The competencies identify a familiarity level, a working level, or an expert level of knowledge; or they require the individual to demonstrate the ability to perform a task or activity. These levels are defined as follows:

Familiarity level is defined as basic knowledge of or exposure to the subject or process adequate to discuss the subject or process with individuals of greater knowledge.

Working level is defined as the knowledge required to monitor and assess operations/activities, to apply standards of acceptable performance, and to reference appropriate materials and/or expert advice as required to ensure the safety of Departmental activities.

Expert level is defined as a comprehensive, intensive knowledge of the subject or process sufficient to provide advice in the absence of procedural guidance.

Demonstrate the ability is defined as the actual performance of a task or activity in accordance with policy, procedures, guidelines, and/or accepted industry or Department practices.

Headquarters and Field elements shall establish a program and process to ensure that aviation safety personnel possess the competencies required of their position. That includes the competencies identified in this technical Functional Area Qualification Standard or a similar Standard developed by the organization. Documentation of the completion of the requirements of the Standard shall be included in the employee's training and qualification record.

Equivalencies may be granted for individual competencies based upon an objective evaluation of the employee's prior advanced education, experience, and/or training. Equivalencies should be used sparingly and then with the utmost rigor and scrutiny to maintain the spirit and intent of the Technical Qualification Program. The supporting knowledge and/or skill statements for the individual competencies should be considered before granting equivalency for a competency. Prior experience within the last 5 years or training that had some form of examination process may be evaluated and documented to demonstrate equivalency to the specified competencies. Completion of a professional certification such as a Professional Engineering license related directly to the functional area may be evaluated and documented to demonstrate equivalency for many of the competencies in a functional area, with the exception of DOE-specific processes and requirements. Satisfactory completion of graduate level college courses that relate directly to specific competencies may be considered equivalent.

Training shall be provided to employees in the Technical Qualification Program that do not meet the competencies contained in the technical Functional Area Qualification Standard. Departmental training will be based upon appropriate supporting knowledge and/or skill statements similar to the ones listed for each of the competency statements. Headquarters and Field elements should use the supporting knowledge and/or skill statements as a basis for evaluating the content of any training courses used to provide individuals with the requisite

knowledge and/or skill required to meet the technical Functional Area Qualification Standard competency statements.

EVALUATION REQUIREMENTS

Attainment of the competencies listed in this technical Functional Area Qualification Standard should be documented by a qualifying official or the immediate supervisor (if technically qualified) of aviation safety personnel using any of the following methods:

- Satisfactory completion of a written examination (preferred method), such as Completion of the Aviation Manager/Aviation Safety Officer Course, Energy On-line Learning Center.
- Satisfactory completion of an oral evaluation (preferred method)
- Satisfactory accomplishment of an observed task or activity directly related to a competency (preferred method)
- Documented evaluation of equivalencies (least preferred method)

Field Element Managers shall qualify candidates as possessing technical knowledge of the complete set of disciplines and competencies contained in this Functional Area Qualification Standard. Final qualification under this Functional Area Qualification Standard should be performed using one or a combination of the following methods:

- Satisfactory completion of a comprehensive written examination. The minimum passing grade should be 80%. (Completion of the Aviation Manager/Aviation Safety Officer Course, Energy On-line Learning Center.)
- Satisfactory completion of an oral examination by a qualified Senior Technical Safety Manager (STSM) or a qualification board of technically qualified personnel to include at least one qualified STSM.
- Satisfactory completion of a walkthrough of a facility with a qualifying official for the purpose of verifying a candidate's knowledge and practical skills of selected key elements, including safety systems, structures, components, and system operating principles of the systems associated with a specific technical area.

For oral examinations and walkthroughs, qualifying officials or board members should ask critical questions intended to integrate identified learning objectives during qualification. Field Element Managers or designees should develop formal guidance for oral examinations and walkthroughs that includes: the standards for qualification; the use of technical advisors by a board; the questioning procedures or protocol; pass/fail criteria; the board deliberation and voting authorization procedures; and the documentation process. A board or qualifying official may conduct the oral interview as a group or individually. The board should document explicitly any questions and answers that result in an oral examination failure. Field Element Managers or their designees may require the candidates who fail a written or oral examination to complete a special study program designed to strengthen weaknesses revealed in the examination. Field Element Managers or their designees may direct candidate reexaminations to verify the effectiveness of actions taken to correct weak areas. Candidates who repeatedly fail examinations should be reassigned to a non-technical position.

CONTINUING EDUCATION, TRAINING, AND PROFICIENCY

Aviation Safety personnel shall participate in continuing education and training as necessary to improve their performance and proficiency and ensure that they stay up-to-date on changing technology and new requirements. This may include courses and/or training provided by:

- Department of Energy
- Other government agencies
- Outside vendors
- Educational institutions

A description of suggested learning proficiency activities, and the requirements for the continuing education and training program for aviation safety personnel are included in Appendix A of this document. *[Note: Additions to Appendix A may be added at a later date.]*

DUTIES AND RESPONSIBILITIES

The following are the typical duties and responsibilities expected of DOE facility technical personnel assigned to the Aviation Safety Officer Functional Area:

- A. Develops and implements a field aviation safety program appropriate to the scope of operations, including instituting safety goals and publicizing them with program participants.
- B. Gathers, trends, and analyzes aviation safety performance data to ensure the safety of the field aviation program.
- C. Implements an integrated safety management system as required by Department of Energy Policy 450.4, Safety Management System Policy.
- D. Conducts periodic assessments of aviation activities to ensure that requirements, policies, and procedures are implemented and followed. Conducts assessments of commercial aviation service (CAS) operators to ensure the safety of CAS operations.
- E. Prepares reports documenting assessment findings, concerns, and recommendations and tracks corrective actions to help prevent similar occurrences.
- F. Participates as directed in aviation accident or incident investigations. Provides assistance to accident investigation boards during their investigations.
- G. Identifies and reports safety concerns to the aviation manager and works to eliminate potential hazards.
- H. Reports safety concerns directly to the field office manager when he/she believes that the field office manager's intervention is required.
- I. Develops Aviation Safety Documents (ASD) for aviation activities that are outside the scope of activities covered by established regulations and policy. ASDs will address potential hazards associated with the activity and methods to mitigate these hazards.

- J. Ensures that aviation personnel report mishaps, hazards, and concerns to the Occurrence Reporting and Processing System (ORPS) or the GSA Aircraft Accident Incident Reporting System (AAIRS).
- K. Participates in the Department's Aviation Safety and Management Awards Program to ensure that organizations and personnel are recognized for their contributions toward providing the Department with a safe aviation program.
- L. May serve as alternate voting member to the DOE Aviation Board of Directors.

Additional duties and responsibilities specific to site related aviation activities shall be contained in the Office/Facility-specific qualification standard(s) or Position Description.

The collateral duty aviation safety officer is an individual who is primarily concerned with the safety of aircraft provided by CAS operators at his/her location. Therefore, this individual is not expected to, nor do they need to, have the level of knowledge that a full-time aviation safety officer requires when overseeing DOE-owned aircraft. The requirements for the collateral duty aviation safety officer are contained in Appendix B.

BACKGROUND AND EXPERIENCE

The U. S. Office of Personnel Management's Qualification Standards Handbook establishes minimum education, training, experience, or other relevant requirements applicable to a particular occupational series/grade level, as well as alternatives to meeting specified requirements.

The education and experience for aviation safety officers are:

1. Education:

A four-year college degree in aviation, systems safety, engineering, or a physical science is desired; or meet the alternative requirements specified in the Office of Personnel Management qualifications standards.

2. Experience:

Industry and/or Department of Energy experience that has provided specialized knowledge in several of the following areas: aviation operations, aviation maintenance, aviation safety, systems safety, site or facility safety, Occupational Health and Safety Administration requirements, transportation safety, or any other aviation, safety, engineering or transportation safety experience.

REQUIRED TRAINING AND TECHNICAL COMPETENCIES

Each Aviation Safety Officer must successfully complete the following course within eighteen months of initial appointment: Department of Energy Aviation Manager and Safety Officer Course.

DOE-STD-1164-2003

Each of the competency statements defines the level of expected knowledge and/or skill that an individual must possess to meet the intent of this Technical Qualification Standard. The supporting knowledge and/or skill statements further describe the intent of the competency statements but are not requirements.

Note: When regulations or Department of Energy directives or other industry standards are referenced in the Qualification Standard, the most recent revision should be used.

1. Aviation Safety Officers shall demonstrate the ability to trend and analyze aviation safety performance data to ensure the safety of the field aviation program.

Supporting Knowledge and/or Skills:

- a. Discuss the key processes used in the trending and analysis of aviation information.
 - b. Discuss the key process to develop and implement performance indicators (measures), validate performance against performance measures, and trend/analyze data to establish a continuous improvement program.
 - c. Given DOE Order 210.1, Performance Indicators and Analysis of Operations Information, discuss the key elements of the Order and how they are applied.
 - d. Given incident/occurrence report data for a specific period, analyze the information for contributing factors and safety trends.
2. Aviation Safety Officers shall demonstrate a working level knowledge of the Department's philosophy and approach to implementing an Integrated Safety Management System.

Supporting Knowledge and/or Skills:

- a. State the objective of Integrated Safety Management.
- b. Discuss the purpose, content, and application of DOE Policy 450.4, Safety Management Systems Policy.
- c. Describe how the seven Guiding Principles in the Integrated Safety Management Policy are used to implement an integrated safety management philosophy.
- d. Describe the five Core Safety Management Functions in the Integrated Safety Management Policy and discuss how they provide the necessary structure for work activities.
- e. Identify and discuss existing Department programs and initiatives that lead to successful implementation of Integrated Safety Management including:
 - Standards/Requirements Identification Documents (S/RIDs), Work Smart Standards, and the Necessary and Sufficient Closure Process
 - Contract reform and performance-based contracting
- f. Explain the basis upon which the safety management could differ from facility to facility.

DOE-STD-1164-2003

3. Aviation Safety Officers shall demonstrate a working level knowledge of the Department's aviation history, organization, and missions.

Supporting Knowledge and/or Skills:

- a. Briefly describe the history of the Department's aviation program.
- b. Describe the aviation program's current organizational structure including those of Headquarter and field elements.
- c. Discuss the roles and responsibilities of the field aviation manager and the aviation safety officer.
- d. List the various aviation missions within the Department and explain their relevancy to your field element.

4. Aviation Safety Officers shall demonstrate a working level knowledge of DOE 440.2B, Aviation Management and Safety.

Supporting Knowledge and/or Skills:

- a. Describe the basic intent of the Order.
- b. List the requirements that must be established for and must be included in a DOE aviation program.
- c. In general, describe the responsibilities of Lead Program Secretarial Officers, Heads of Department Elements, Heads of Power Marketing Administrations, and Heads of Field elements that conduct aviation operations within their programs.
- d. Discuss the primary requirements that apply to CAS aircraft operations.
- e. Discuss the method used to help ensure that field aviation programs meet the intent of the Order and to provide uniformity throughout the program.

5. Aviation Safety Officers shall demonstrate a working level knowledge of the roles of the Aviation Board of Directors (ABD), the Senior Aviation Management Official (SAMO), and the Office of Aviation Management (OAM).

Supporting Knowledge and/or Skills:

- a. Describe the roles and responsibilities of the ABD, the SAMO, and the OAM within the aviation program.
- b. Describe the purpose of the ABD's management style.
- c. Describe how aviation policy decisions are finalized within the Board.
- d. Discuss the current Board membership including how individuals are appointed to the Board, the length of appointment, and membership voting rights.

6. Aviation Safety Officers shall demonstrate a familiarity level knowledge of a typical commercial aviation organization.

DOE-STD-1164-2003

Supporting Knowledge and/or Skills:

- a. Describe the typical management structure and associated positions in a commercial (civil) aviation organization
 - b. Explain how the top management structure and the operating rules of a commercial organization may differ from the Department's organization.
 - c. Describe similarities between the Department's aviation organization and that of a commercial operator including:
 - Aviation manuals
 - Training programs
 - Maintenance and inspection requirements
7. Aviation Safety Officers shall demonstrate a working level knowledge of their site specific Aviation Implementation Plan (AIP).

Supporting Knowledge and/or Skills:

- a. Describe the purpose of the AIP and how it pertains to your local organization.
 - b. Discuss the process for developing and approving an AIP.
 - c. Describe the process and frequency for reviewing, amending, and reapproving your AIP.
 - d. Identify the major program areas addressed in your AIP.
8. Aviation Safety Officers shall demonstrate a working level knowledge of the capabilities of the aircraft used in their program.

Supporting Knowledge and/or Skills:

- a. Describe the basic capabilities and operating limitations for your aircraft including the following items:
 - Number of required crewmembers for each mission type
 - Passenger capacity
 - Weather limitations
 - Time of day restrictions for your operations
 - Altitude limitations
 - Runway limitations
 - Maximum weight and any cargo limitations
 - Endurance limitations
 - b. Given a possible mission, demonstrate how you might determine whether or not you could perform a mission that the Department requests with your aircraft.
9. Aviation Safety Officers shall demonstrate a working level knowledge of Federal Aviation Administration's (FAA's) role in DOE Aviation.

DOE-STD-1164-2003

Supporting Knowledge and/or Skills:

- a. Describe the Air Commerce Act of 1926 and the precedent that it set that continues to impact DOE aviation today.
 - b. Explain the primary differences in how the FAA views public aircraft and civil aircraft.
 - c. Explain the primary differences in the rules governing DOE operations when DOE-owned, chartered, leased, bailed, or rented aircraft carry DOE passengers versus when these aircraft are conducting a Department mission carrying personnel (crewmembers or qualified non-crewmembers).
 - d. Describe the rules and regulations that govern other military, federal, state, or local agency aviation operations when they carry DOE personnel.
 - e. Explain which operations within the Department the FAA has oversight for and the relevancy of this oversight to your operations.
 - f. Describe how the FAA maintains oversight of Department operations including the frequency of this oversight.
10. Aviation Safety Officers shall demonstrate a working level knowledge of the organization of the Code of Federal Regulations and how to locate information in it.

Supporting Knowledge and/or Skills:

- a. Given a reference in the CFR, identify the following:
 - Title
 - Chapter
 - Part
 - Subpart
 - Section
 - b. Perform a keyword search for a specific topic in the CFR.
 - c. Retrieve a specific CFR section by its citation.
 - d. Given a possible scenario, locate the applicable CFR guidance and apply it to the situation.
11. Aviation Safety Officers shall demonstrate the ability to conduct evaluations of Commercial Aviation Service (CAS) operators using the DOE CAS Operator Checklist.

Supporting Knowledge and/or Skills:

- a. Discuss methods used to verify that CAS operators are following the proper regulations, policies, and requirements when performing various missions for DOE including:
 - FAA regulations
 - DOE requirements
 - National Transportation Safety Board (NTSB) requirements
 - Insurance requirements

DOE-STD-1164-2003

- State and local requirements
 - Occupational Safety and Health Administration (OSHA) requirements
- b. Identify the method that DOE uses to place specific requirements on CAS operators while they are operating for DOE.
- c. Discuss why the FAA has regulatory oversight of some DOE CAS aircraft missions and not others and identify those that your field element conducts for which the FAA has no responsibility.
- d. Briefly describe the FAA's level of oversight of CAS operators including the regularity of this oversight.
- e. Describe your field elements' methods for conducting oversight of CAS operators including:
- Identifying when an assessment needs to be performed
 - Identifying the individuals that may be qualified to perform the assessment
 - Determining the regulations, policies, and procedures that the operator will be assessed to perform
- f. Identify the major areas addressed in the DOE Commercial Aviation Service Checklist that should be included in all CAS operator assessments.
12. Aviation Safety Officers shall demonstrate a working level knowledge of the requirements contained in 14 Code of Federal Regulations (CFR) Parts 91, General Operating and Flight Rules; 121, Operating Requirements: Domestic, Flag, and Supplemental Operations; 133, Rotorcraft External-Load Operations; 135, Operating Requirements: Commuter and On-Demand Operations; and 137, Agricultural Aircraft Operations; for commercial operators.

Supporting Knowledge and/or Skills:

- a. Describe which Parts of the Federal Aviation Regulations govern certificated operators versus non-certificated operators.
- b. Describe some of the differences in FAA operations and maintenance requirements for certificated operators versus non-certificated operators including:
- Crewmember qualification
 - Crewmember training requirements
 - Flight and duty time limitations
 - Airworthiness inspection differences
- c. Discuss the types of missions that require a Part 135 operator versus those that may be performed by a Part 91 operator.
- c. Identify the regulations that the Department would be primarily concerned with when procuring the services of a CAS operator to conduct various missions including:

DOE-STD-1164-2003

- Transporting nine or less passengers
- Transporting ten or more passengers
- Conducting pipeline or power line patrol
- Taking aerial photographs over our facilities
- Spraying an area for controlling insect populations
- Putting a large air conditioner on top of a facility
- Taking a facility manager over a site to view new construction

13. Aviation Safety Officers shall demonstrate a working level of knowledge with the Department's aviation accident/fatality history and its impact on the program.

Supporting Knowledge and/or Skills:

- a. Briefly describe the Department's aviation accident history identifying the most significant occurrences including:
- Department-owned aircraft accidents
 - CAS (chartered, rented or leased) aircraft accidents
 - Most predominate cause for these accidents
- b. Describe some of the immediate and long-range impacts of these accidents on the program.
- c. Qualitatively compare the Department's aviation accident rates with civil aviation's accident rates.
- d. Compare the Department's recent accident history with that prior to 1992 and describe some of the program changes that have affected this rate.

14. Aviation Safety Officers shall demonstrate a working level knowledge of their site-specific pre-accident plan.

Supporting Knowledge and/or Skills:

- a. Describe the pre-accident plan at your site and include:
- Immediate notification procedures and the "chain of command"
 - Methods to secure an on-site or off-site accident
 - Coordination contingencies with local government and private organizations such as police and fire departments, hospitals, and medical evacuation units
 - Responsibilities of the Department for notifying family members and providing assistance to them
- b. Explain whether the pre-accident plan is aviation specific or generic to all operations at the site.
- c. Describe the training and qualifications for individuals within your aviation program regarding the pre-accident plan including:
- Accident notification procedures

DOE-STD-1164-2003

- Medical assistance that individuals may provide
 - Biohazards and methods to handle them
 - Hazardous materials if present at an aviation accident site
- d. Describe the review process for your pre-accident plan and how often this occurs.
15. Aviation Safety Officers shall demonstrate a working level knowledge of DOE Order 225.1A, Accident Investigations and its associated Guide, DOE G 225.1A-1, Guide for DOE O 225.1 Accident Investigations.

Supporting Knowledge and/or Skills:

- a. Describe the two types of accident investigations currently performed within the Department.
 - b. Explain the primary differences between the two types of accident investigations including:
 - The major criteria that determine which type of investigation will be conducted
 - Who has responsibility for appointing each investigation board
 - c. Discuss the qualifications required for acting as a member of an accident investigation board.
 - d. Identify the one qualification that at least one board member must have in order to have a fully-qualified board.
 - e. Discuss who has the authority to grant a waiver for conducting an accident investigation.
 - f. Describe the requirements for publishing lessons learned once an investigation is completed.
16. Aviation Safety Officers shall demonstrate a familiarity level of knowledge of the National Transportation Safety Boards's (NTSB's) role in investigating DOE aviation accidents.

Supporting Knowledge and/or Skills:

- a. Identify the organization that has the primary responsibility for investigating DOE aviation accidents and their ability to designate this authority to third parties.
- b. Describe some of the major differences between the NTSB investigating a DOE aviation accident and the Department conducting an accident investigation including:
 - Determination of probable cause
 - Determination of contributing causal factors
 - Management's role in the aviation program

- c. Describe the time frame for the NTSB to issue an accident investigation final report.
17. Aviation Safety Officers shall demonstrate a working level knowledge of how to notify the National Transportation Safety Board (NTSB) if an accident occurs and the information that is required in the notification.

Supporting Knowledge and/or Skills:

- a. Identify the federal regulation that requires aviation mishaps to be reported to the NTSB.
 - b. Distinguish examples of accident from incidents.
 - c. Describe the time limitations for notifying the NTSB of a mishap.
 - d. Given possible accidents and incidents, distinguish those that would require NTSB notification.
 - e. Discuss how and where the NTSB should be notified of a mishap.
 - f. Describe who is responsible for notifying the NTSB in the event of a DOE-owned aircraft mishap versus DOE-chartered, leased, bailed, or rented aircraft.
 - g. Identify who is responsible for preserving the wreckage at an accident site.
 - h. List the information required in an NTSB notification and how soon it should be filed with the NTSB.
18. Aviation Safety Officers shall demonstrate a working level knowledge of DOE O 232.1A, Occurrence Reporting and Processing of Operations Information and its associated Guide, DOE G 232.1-1A, Occurrence Reporting and Processing of Operations Information.

Supporting Knowledge and/or Skills:

- a. Discuss some of the reasons that the Department maintains the Occurrence Reporting and Processing System (ORPS).
 - b. Describe the three categories of occurrences that are to be reported.
 - c. Discuss the time limitation for filing initial reports, updates to the reports, and final reports.
 - d. Describe the method for filing reports and updates to the reports.
19. Aviation Safety Officers shall demonstrate a working level knowledge of the GSA Aircraft Accident Incident Reporting System (AAIRS).

Supporting Knowledge and/or Skills:

- a. Briefly describe AAIRS, its purpose, and its relationship to the Department's ORPS program.
- b. Describe the various methods for filing a report with AAIRS.

DOE-STD-1164-2003

- c. Explain how individuals within your program are using AAIRS and the types of reports that they have filed.
- d. Discuss how to retrieve previously filed reports from AAIRS.
- e. Discuss how your program can use AAIRS reports to increase safety awareness within your program.

20. Aviation Safety Officers shall demonstrate a working level knowledge of the Aviation Safety and Management Awards Program.

Supporting Knowledge and/or Skills:

- a. Describe the purpose of the Department's Aviation Safety and Management Awards Program.
- b. Identify the various award categories that are available to organizations and individuals and the frequency at which they may be awarded.
- c. Discuss the process for nominating organizations and individuals for awards.
- d. Identify the various types of award items that are presented to organizations and individuals for each award.

21. Aviation Safety Officers shall demonstrate a working level knowledge of 41 CFR 102-33, Federal Management Regulation.

Supporting Knowledge and/or Skills:

- a. Describe the program that is outlined in this regulation and identify which organizations are required to comply with this regulation.
- b. Describe some of the program elements that are identified in the safety program outlined in 41 CFR 102-33.
- c. Discuss the level to which the Department and your site comply with this regulation.

22. Aviation Safety Officers shall demonstrate a working level knowledge of safeguards and security as it relates to aviation operations.

Supporting Knowledge and/or Skills:

- a. Define the terms "safeguards" and "security" as they apply to the Department's aviation program.
- b. Discuss the following and their implications within your program:
 - Physical security
 - Personnel security
 - Material control and accountability
- c. Describe the use of information security systems within the Department.

APPENDIX A—CONTINUING EDUCATION, TRAINING, AND PROFICIENCY PROGRAM

The following list represents suggested continuing education, training, and other opportunities that are available for aviation safety personnel after completion of the competency requirements in this technical Functional Area Qualification Standard. It is extremely important that personnel involved with aviation safety maintain their proficiency through continuing education, training, reading, or other activities such as workshops, seminars, and conferences. The list of suggested activities was developed by the Subject Matter Experts involved in the development of the Functional Area Qualification Standard and is not all inclusive.

Based on the knowledge and experience of the Subject Matter Experts, it is suggested that [*to be determined*] learning activities per [*to be determined*] are necessary to maintain proficiency in the aviation safety functional area after completion of the competencies in the Standard and other requirements of the Technical Qualification Program.

LIST OF CONTINUING EDUCATION, TRAINING AND OTHER ACTIVITIES:

- DOE Aviation Manager and Safety Officer Course
- University of Southern California, Aviation Safety Officer Course
- Emory Riddle College, Aviation Management and Safety Course
- Helicopter Association International, Aviation Safety Officer Course
- National Transportation Safety Board, Accident Investigation
- Transportation Safety Institute, Risk Management
- Transportation Safety Institute, Accident Investigation
- Transportation Safety Institute, Accident Investigation (Rotorcraft)
- Transportation Safety Institute, Accident Investigation (Airplane)

INTENTIONALLY BLANK

APPENDIX B—COLLATERAL DUTY AVIATION SAFETY OFFICER

The collateral duty aviation safety officer is an individual who is primarily concerned with the safety of aircraft that are provided by commercial aviation service vendors at his/her location. Therefore, this individual is not expected to, nor do they need to, have the level of knowledge that a full-time aviation safety officer requires.

The following sections are provided to outline the items that the collateral duty aviation safety officer should have a working knowledge of, or a familiarity knowledge of in the performance of his/her duties.

LIST OF COMPETENCIES AND LEVELS OF KNOWLEDGE:

Competency Number	Level of Knowledge
Competency # 1.	Familiarity
Competency # 2.	Familiarity
Competency # 3.	Familiarity
Competency # 4.	Working
Competency # 5.	Working
Competency # 6.	Familiarity
Competency # 7.	Working
Competency # 8.	Familiarity
Competency # 9.	Familiarity
Competency # 10.	Working
Competency # 11.	Familiarity
Competency # 12.	Working
Competency # 13.	Familiarity
Competency # 14.	Familiarity
Competency # 15.	Familiarity
Competency # 16.	Working
Competency # 17.	Working
Competency # 18.	Working
Competency # 19.	Working
Competency # 20.	Working
Competency # 21.	Familiarity
Competency # 22.	Familiarity

INTENTIONALLLY BLANK

CONCLUDING MATERIAL

Review Activity:

DOE

DP-NNSA

EH

EM

NE

NN-NNSA

SC

FE

Field and Operations Offices

AL

CH

ID

Fernald

NV

OAK

OH

OR

RF

RL

SF

SR

Carlsbad Field Office (CBFO)

Office of River Protection

Preparing Activity:

ME2.4/DOE-EH-2.2

Project Number:

TRNG-0032

Area Offices:

Amarillo Area Office

Argonne Area Office

Brookhaven Area Office

Fermi Area Office

Kirtland Area Office

Los Alamos Area Office

Princeton Area Office

Rocky Flats Area Office

Y-12 Area Office