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

**CHANGE NOTICE NO. 1
January 2010**

DOE STANDARD

AVIATION SAFETY OFFICER FUNCTIONAL AREA QUALIFICATION STANDARD

DOE Defense Nuclear Facilities Technical Personnel



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

AREA TRNG

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APPROVAL

The Federal Technical Capability Panel consists of senior U.S. Department of Energy (DOE) 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.

A handwritten signature in black ink that reads "Karen L. Boardman". The signature is written in a cursive style with a horizontal line underneath the name.

Karen L. Boardman, Chairperson
Federal Technical Capability Panel

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List of Changes

Page/paragraph	Change
Page ii	Change to new FAQs format
Page iii	Change in approval signature
Page iv	Added list of changes
Page v	Updated Table of Contents
Page vii	Changes to organizational names and numbers
Page 1, paragraphs 1, 2, and 3	Change to new FAQs format
Page 1, paragraph 4	Added new paragraph
Page 2, paragraphs 1, 2, 3, and 4	Change to new FAQs format
Page 3, paragraphs 1, 2, 3, 4, and 5	Change to new FAQs format and added new paragraph
Page 4, paragraphs 1, 2, 3, 4, 5, and 6	Change to new FAQs format and added 3 new paragraphs
Page 6, paragraph 4 and Note	Change to new FAQs format
Page 7, competency 1c	Updated DOE Order number
Page 8, competency 4	Updated DOE Order number
Page 11, competency 12	Updated CFR name
Page 13, competency 15	Updated DOE guide name
Page 14, competency 18	Updated DOE Order number
Page 15, competency 21	Updated CFR name
Page 17, paragraph 1 and 2	Change to new FAQs format
Page 17, paragraph 3	Added 2 training activities
Page 19	Updated organizational names

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ACKNOWLEDGMENT

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

The following subject matter experts participated in the development and/or review of this qualification standard:

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U.S. DEPARTMENT OF ENERGY FUNCTIONAL AREA QUALIFICATION STANDARD

Aviation Safety Officer

PURPOSE

DOE O 426.1, *Federal Technical Capability*, commits the Department to continuously strive for technical excellence. The Technical Qualification Program (TQP), along with the supporting technical 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 qualification standards should be aligned with and integrated into the recruitment and staffing processes for technical positions. The technical qualification standards should form the primary basis for developing vacancy announcements, qualification requirements, crediting plans, interview questions, and other criteria associated with the recruitment, selection, and internal placement of technical personnel. The U.S. Office of Personnel Management (OPM) minimum qualifications standards will be greatly enhanced by application of appropriate materials from the technical FAQs.

The technical qualification standards are not intended to replace the OPM qualifications standards or other Departmental personnel standards, rules, plans, or processes. The primary purpose of the TQP is to ensure that employees have the requisite technical competency to support the mission of the Department. The TQP 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 FAQs establishes common functional area competency requirements for all DOE aviation safety personnel who provide assistance, or direction, guidance, oversight, or evaluation of contractor technical activities that could impact the safe operation of DOE's facilities. The technical FAQs has been developed as a tool to assist DOE program and field offices in the development and implementation of the TQP in their organization. For ease of transportability of qualifications between DOE elements, program and field offices are expected to use this technical FAQs without modification. Needed additional office-/site-/facility-specific technical competencies should be handled separately. Satisfactory and documented attainment of the competency requirements contained in this technical FAQs (see the Federal Technical Capability Program [FTCP] Directives and Standards page at <http://www.hss.energy.gov/dep/ftcp/directives/directives.asp> for an example of the Aviation Safety Officer FAQs qualification card) ensures that personnel possess the minimum requisite competence to fulfill their functional area duties and responsibilities common to the DOE complex. Additionally, office-/site-/facility-specific qualification standards supplement this technical FAQs and establish unique operational competency requirements at the Headquarters or field element, site, or facility level.

It should be noted that the competencies of management and leadership, general technical knowledge, regulations, administrative capability, and assessment and oversight are all

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embodied in the competencies listed in this standard. All of these factors have a bearing on safety. Although the focus of this standard is technical competence, competencies such as good communication, recognized credibility, ability to listen and process information, and the ability to guide an effort to get it right the first time are recognized as important aspects of safety.

IMPLEMENTATION

This FAQs identifies the minimum technical competency requirements for DOE personnel. Although there are other competency requirements associated with the positions held by DOE personnel, this FAQs is limited to identifying the specific, common technical competencies required throughout all defense nuclear facilities. The competency requirements define the expected knowledge and/or skill that an individual must meet. Each of the competency requirements is further described by a listing of supporting knowledge and/or skill statements. The supporting knowledge and/or skill statements for each competency requirement are provided to challenge the employee in the breadth and depth of his/her understanding of the subject matter. In selected competencies, expected knowledge and/or skills have been designated as “mandatory performance activities.” In these competencies, the actions are not optional.

The term “must” denotes a mandatory requirement, “should” denotes a recommended practice that is not required, and “may” denotes an option in this standard.

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 recognize the need to seek and obtain appropriate expert advice (e.g., technical, legal, safety) or consult appropriate reference materials required to ensure the safety of DOE 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 DOE practices.

Headquarters and field elements must establish a program and process to ensure that DOE personnel possess the competencies required by their position, including the competencies identified in this technical FAQs. Documentation of the completion of the requirements of this standard must be included in the employees’ training and qualification records. Satisfactory attainment of the competency requirements contained in this technical FAQs may be documented using the example Aviation Safety Officer FAQs qualification card that can be obtained from the Federal Technical Capability Program Directives and Standards page at

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<http://www.hss.energy.gov/dep/ftcp/directives/directives.asp>.

Equivalencies should be used sparingly and with the utmost rigor and scrutiny to maintain the spirit and intent of the TQP. Equivalencies may be granted for individual competencies based on objective evidence of previous education, training, certification, or experience. Objective evidence includes a combination of transcripts, certifications, and in some cases, a knowledge sampling obtained through written and/or oral examinations. Equivalencies must be granted in accordance with the TQP plan of the site/office/Headquarters organization qualifying the individual. The supporting knowledge and/or skill statements and mandatory performance activities should be considered before granting an equivalency for a competency.

Training must be provided to employees in the TQP who do not meet the competencies contained in this technical FAQs. Training may include, but is not limited to, formal classroom and computer-based courses, self-study, mentoring, on-the-job training, and special assignments. Departmental training must be based on appropriate supporting knowledge and/or skill statements similar to the ones listed for each of the competency requirements. Headquarters and field elements should use the supporting knowledge and/or skill statements as a basis for evaluating the content of any training used to provide individuals with the requisite knowledge and/or skill required to meet the technical FAQs competency requirements.

EVALUATION REQUIREMENTS

Attainment of the competencies listed in this technical FAQs must be documented in accordance with the TQP plan or policy of the site/office/Headquarters organization qualifying the individual and the requirements in DOE M 360.1-1B, *Federal Employee Training Manual*, and DOE M 426.1-1A.

The qualifying official or immediate supervisor should ensure that the candidate meets the background and experience requirements of this FAQs. Unless stated otherwise within the program or site TQP plan, attainment of the competencies listed in the Aviation Safety Officer FAQs should be evaluated and documented by either a qualifying official or immediate supervisor (note: if the immediate supervisor is not an Aviation Safety Officer, it is expected that the supervisor consult with a qualified Aviation Safety Officer using one or a combination of the following methods:

- Satisfactory completion of a written examination such as Completion of the Aviation Manager/Aviation Safety Officer Course, Energy On-line Learning Center.
- Satisfactory completion of an oral examination.
- Satisfactory accomplishment of an observed task or activity directly related to a competency.
- Documented evaluation of equivalencies (such as applicable experience in the field) without a written examination.

Field element managers/Headquarters program managers must qualify candidates as possessing the basic technical knowledge, technical discipline competency, and position-specific knowledge, skills, and abilities required for their positions. Final qualification should be performed using one or a combination of the following methods:

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- Satisfactory completion of a comprehensive written examination. The minimum passing grade should be 80 percent.
- Satisfactory completion of an oral examination by a qualified Senior Technical Safety Manager (STSM) or a qualification board of technically qualified personnel that includes 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.

Guidance for oral interviews and written exams is contained in DOE-HDBK-1205-97, *Guide to Good Practices for the Design, Development, and Implementation of Examinations*, and DOE-HDBK-1080-97, *Guide to Good Practices for Oral Examinations*.

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/Headquarters program managers or designees should develop formal guidance for oral examinations and walkthroughs that includes:

- Standards for qualification
- Use of technical advisors by a board
- Questioning procedures or protocol
- Pass/fail criteria
- Board deliberations and voting authorization procedures
- Documentation process

INITIAL QUALIFICATION AND TRAINING

Qualification of aviation safety personnel must be conducted in accordance with the requirements of DOE M 426.1-1A.

DOE personnel must 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:

- DOE
- Other government agencies
- Outside vendors
- Educational institutions

Beyond formal classroom or computer-based courses, continuing training may include:

- Self-study
- Attendance at symposia, seminars, exhibitions
- Special assignments
- On-the-job experience

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A description of suggested learning activities and the requirements for the continuing education and training program for the Aviation Safety Officer FAQs are included in Appendix A of this document.

DUTIES AND RESPONSIBILITIES

The following are the typical duties and responsibilities expected of 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 DOE P 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 General Services Administration (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 (ABD).

Position-specific duties and responsibilities for aviation safety personnel are contained in their

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office-/site-/facility-specific qualification standard and/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 OPM *Qualification Standards Operating Manual* 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 preferred education and experience for aviation safety personnel are:

1. Education:

A four-year college degree in aviation, systems safety, engineering, or a physical science is desired; or meets the alternative requirements specified in the OPM qualifications standards.

2. Experience:

Industry and/or DOE 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 Safety and Health Administration (OSHA) requirements, transportation safety, or any other aviation, safety, engineering or transportation safety experience.

REQUIRED TRAINING AND TECHNICAL COMPETENCIES

The competencies contained in this standard are distinct from those competencies contained in the General Technical Base (GTB) Qualification Standard. All aviation safety personnel must satisfy the competency requirements of the GTB Qualification Standard prior to or in parallel with the competency requirements contained in this standard. Each of the competency requirements defines the level of expected knowledge and/or skill that an individual must possess to meet the intent of this standard. Each of the competency requirements is further described by a listing of supporting knowledge and/or skill statements that describe the intent of the competency statements. In selected competencies, expected knowledge and/or skills have been designated as “mandatory performance activities.” In these competencies, the actions are not optional.

Note: When regulations, DOE directives, or other industry standards are referenced in the FAQs, the most recent revision should be used. It is recognized that some aviation safety personnel may oversee facilities that utilize predecessor documents to those identified. In those cases, such documents should be included in local qualification standards via the TQP.

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1. **Aviation Safety Officers must demonstrate the ability to analyze and trend 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 analysis and trending of aviation information.
- b. Discuss the key process to develop and implement performance indicators (measures), validate performance against performance measures, and analyze/trend data to establish a continuous improvement program.
- c. Given DOE O 210.2, *DOE Corporate Operating Experience Program*, 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 must demonstrate a working level knowledge of the Department's philosophy and approach to implementing an Integrated Safety Management System (ISMS).**

Supporting Knowledge and/or Skills:

- a. State the objective of Integrated Safety Management (ISM).
- b. Discuss the purpose, content, and application of DOE P 450.4, *Safety Management Systems Policy*.
- c. Describe how the seven Guiding Principles in the ISM Policy are used to implement an ISM philosophy.
- d. Describe the five Core Safety Management Functions in the ISM 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 ISM including the following:
 - 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.

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

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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 must demonstrate a working level knowledge of DOE O 440.2B Chg 1, *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 must demonstrate a working level knowledge of the roles of the 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 must demonstrate a familiarity level knowledge of a typical commercial (civil) aviation organization.

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Supporting Knowledge and/or Skills:

- a. Describe the typical management structure and associated positions in a commercial 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 the following:
 - Aviation manuals
 - Training programs
 - Maintenance and inspection requirements

7. Aviation Safety Officers must 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 must 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.

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9. Aviation Safety Officers must demonstrate a working level knowledge of Federal Aviation Administration's (FAA's) role in DOE aviation.

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 must demonstrate a working level knowledge of the organization of the Code of Federal Regulations (CFR) 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 must demonstrate the ability to conduct evaluations of CAS operators using the DOE CAS Operator Checklist.

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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 the following:
 - FAA regulations
 - DOE requirements
 - National Transportation Safety Board (NTSB) requirements
 - Insurance requirements
 - State and local requirements
 - 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 the following:
 - 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 by.
 - f. Identify the major areas addressed in the DOE CAS Checklist that should be included in all CAS operator assessments.
- 12. Aviation Safety Officers must demonstrate a working level knowledge of the requirements for commercial operators contained in 14 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 Rules Governing Persons On Board Such Aircraft*; and 137, *Agricultural Aircraft Operations*.**

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

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the following:

- 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.
- d. Identify the regulations that the Department would be primarily concerned with when procuring the services of a CAS operator to conduct various missions including the following:
- 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 must 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 the following:
- 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 must 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 the following:

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- 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 the following:
- Accident notification procedures.
 - 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 must demonstrate a working level knowledge of DOE O 225.1A, *Accident Investigations* and its associated Guide, DOE G 225.1A-1, *Implementation Guide for Use with DOE O 225.1A, 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 following:
- 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.

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16. **Aviation Safety Officers must demonstrate a familiarity level of knowledge of the 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 the following:
 - 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 must demonstrate a working level knowledge of how to notify the 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 must demonstrate a working level knowledge of DOE M231.1-2, *Occurrence Reporting and Processing of Operations Information*.**

Supporting Knowledge and/or Skills:

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- a. Discuss some of the reasons that the Department maintains 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 must demonstrate a working level knowledge of the GSA 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.
- 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 must 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 must demonstrate a working level knowledge of 41 CFR 102-33, *Management of Government Aircraft*.

Supporting Knowledge and/or Skills:

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- 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 must 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.

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APPENDIX A CONTINUING EDUCATION, TRAINING, AND PROFICIENCY PROGRAM

The following list represents suggested continuing education, training, and other opportunities that are available for DOE personnel after completion of the competency requirements in this technical FAQs. It is extremely important that personnel involved with this program maintain their proficiency primarily by regularly demonstrating their competency through on-the-job performance, supplemented with 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 FAQs and is not all-inclusive.

Based on the knowledge and experience of the subject matter experts, it is suggested that 15 hours of learning activities per year are necessary to maintain proficiency in the aviation safety functional area after completion of the competencies in the standard and other requirements of the TQP.

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)
- OAM Aviation Workshop Training
- Fed Fleet Aviation Training

**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 CAS 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

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CONCLUDING MATERIAL

Review Activity:

EM
HSS
NE
NNSA
SC
FE

Preparing Activity:

DOE-[MA-30]

Project Number:

TRNG-XXXX

Field and Operations Offices:

CBFO
CH
ID
OH
ORP
RFFO
RL
SR

Site Offices:

Argonne Site Office
Brookhaven Site Office
Fermi Site Office
Kansas City Site Office
Livermore Site Office
Los Alamos Site Office
Nevada Site Office
Pantex Site Office
Savannah River Site Office
Sandia Site Office
Y-12 Site Office