DOE STANDARD

EMERGENCY MANAGEMENT FUNCTIONAL AREA QUALIFICATION STANDARD

DOE Defense Nuclear Facilities Technical Personnel

U.S. Department of Energy
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AREA TRNG

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APPROVAL

The Federal Technical Capabilities Panel (FTCP) is responsible for reviewing and approving Functional Area Qualification Standards (FAQS) for Department-wide application. Approval of this FAQS from the FTCP is indicated by the signature below.

Gabriel M. Pugh

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Date: 2024.03.20 20:37:37 -06'00'

Gabriel Pugh, Chairperson
Federal Technical Capabilities Panel

Date

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ACKNOWLEDGMENT

ACRONYM LIST

CTP	Continuing Training Program
DOE	Department of Energy
EMI	Emergency Management Institute (FEMA)
EOS	Emergency Operations System
EPHA	Emergency Planning Hazard Assessment
ERAP	Emergency Readiness Assurance Plan
ERO	Emergency Response Organization
eTQP	electronic Technical Qualification Program
FAQS	Functional Area Qualification Standards
FEMA	Federal Emergency Management Agency
FTCP	Federal Technical Capabilities Panel
GTB	General Technical Base
HSEEP	Homeland Security Exercise and Evaluation Program
MEPP	Master Exercise Practitioner Program
MPA	Mandatory Performance Activities
NTC	National Training Center
QO	Qualifying Official
QS	Qualification Standard
TPB	Technical Planning Basis
TQP	Technical Qualification Program

DOE-STD-1177-2024

U.S. DEPARTMENT OF ENERGY
FUNCTIONAL AREA QUALIFICATION STANDARD

Emergency Management FAQS

PURPOSE

Functional area qualification standards (FAQS) establish common performance competencies in key nuclear facility functional areas for personnel in the DOE Technical Qualification Program (TQP). This FAQS establishes a common set of performance competencies to ensure designated personnel have the technical competency to perform the duties and responsibilities of an emergency management oversight professional.

The content of this FAQS should be referenced and used as appropriate to develop vacancy announcements, interview questions, and other criteria associated with the recruitment, selection, and internal placement of personnel assigned to this FAQS.

APPLICABILITY

The DOE O 426.1B, *Federal Technical Capabilities,* requires FAQS to be developed in specific areas as a tool to assist DOE program and field offices with implementation of their organization specific TQP. The Emergency Management FAQS establishes common performance competencies for all DOE personnel who perform emergency management oversight duties and responsibilities. For ease of transportability of qualifications between DOE elements, program and field offices must use this FAQS without modification or addition to the performance competency knowledge requirements. Satisfactory and documented attainment of the performance competencies in this FAQS ensures personnel possess the minimum requisite knowledge and skills to perform emergency management oversight duties and tasks common to the DOE enterprise. DOE O 426.1B requires organization specific qualification standards to supplement this FAQS and establish unique performance competencies at the organization (headquarters, field element, lab, plant, site, or building) level.

IMPLEMENTATION

This FAQS, derived from an emergency management job task analysis, is comprised of performance competencies based on task performance. Each performance competency includes knowledge requirements and any mandatory performance activities (MPAs) that need to be completed to demonstrate that the performance competency has been met. Evaluation guides provide the expected level of knowledge that personnel assigned this FAQS must obtain for each related knowledge requirement. Designated qualifying officials (QO) who are responsible for verifying the attainment of these knowledge requirements also use the evaluation guides. The evaluation guides for this FAQS are available through the National Training Center (NTC) TQP support site at https://ntc.doe.gov/sites/tqp/SitePages/Home.aspx.

The performance competencies in this FAQS include DOE-unique knowledge requirements that the candidate must obtain and then apply to specific job tasks that are identified as MPAs in this FAQS. The overall objective of the MPAs is to determine whether an emergency management professional can apply the related knowledge to satisfactorily perform the associated job task.

This FAQS is comprised of required common emergency management knowledge competencies followed by appendices with topical area performance competencies. For initial qualification, all federal emergency managers assigned this FAQS must demonstrate attainment of the knowledge in the "Required Performance Competencies" sections. If any duties change, supervisors should ensure that the participant is assigned other applicable appendices.

The MPAs listed in this FAQS are required to be performed only once. If, during performance of an MPA, any of the evaluation criteria is not met, the designated QO may require the candidate to perform the MPA again. In this case, satisfactory completion of the MPA only needs to be documented once. Some of the MPAs in this FAQS may already be included in an organization-specific QS. In this case, the designated QO needs to verify the documentation prepared by the candidate and then document the accommodation as part of this FAQS or during completion of the organization specific qualification standard.

Candidates should perform the MPAs listed in the FAQS in their normal work environment, such as in assigned facilities or areas where the associated mission work is being accomplished. Supervisors may use other options to facilitate completion of the MPA requirements in cases where candidates cannot perform the MPAs exactly as written, such as in their normal work environment within the required qualification timeframe. This could include performance of the MPA in a simulated environment or by making minor accommodations to the MPA or MPA evaluation criteria to fit local conditions and limitations as agreed upon by the QO. The reason for any accommodation in the MPA must be documented by the designated QO and include approval of the supervisor and local FTCP Agent.

EVALUATION CRITERIA

Attainment of the performance competency knowledge requirements and MPAs listed in this FAQS must be documented per the TQP plan or policy of the specific organization qualifying the individual and the requirements in DOE O 426.1B, *Federal Technical Capabilities*.

Each performance competency includes knowledge requirements or MPAs that need to be completed to demonstrate that the performance competency has been met. Attainment of the performance competency knowledge requirements or MPAs listed in this FAQS must be verified by a designated QO using one (or a combination) of the following methods listed in DOE O 426.1B:

- Satisfactory completion of a written examination.

- Satisfactory completion of an oral evaluation.

- Documented evaluation of equivalencies.

- Completion of approved training courses that confirm attainment of specific knowledge requirements.

A designated QO must also verify successful completion of the MPAs in this FAQS. The QO must verify that the evaluation criteria, including any organization specific requirements, were met during observation of the MPA and/or review of the results of the MPA.

Satisfactory attainment of the performance competency knowledge requirements and MPAs contained in this FAQS must be documented using the Emergency Management Oversight FAQS qualification card in the electronic Technical Qualification Program (eTQP) at https://etqp.ntc.doe.gov.

After verification of attainment of all the performance competency knowledge requirements and the MPAs in this FAQS, an emergency management candidate must satisfactorily complete the final qualification activity requirements identified in DOE O 426.1B and any other applicable organization specific requirements before being designated as a qualified emergency management professional.

INITIAL QUALIFICATION AND CONTINUING TRAINING

Appendix A, *Initial Qualification Training Recommendations*, includes a list of NTC and other training courses that support attainment of the required performance competencies for emergency management professionals and specialist participants.

Appendix B, *Continuing Training Recommendations*, states that emergency management personnel must participate in a continuing training and qualification program.

DUTIES AND RESPONSIBILITIES

Position-specific duties and responsibilities for emergency management are contained in organization-specific qualification standards and position descriptions.

The following are typical duties and responsibilities expected of emergency management oversight personnel:

- Analyze documents related to emergency management.

- Monitor day-to-day program activities.

- Conduct oversight activities to support periodic contractor performance evaluations.

- Provide subject-matter expertise as requested.

Technical support duties are dependent on the level of subject-matter expertise of the individual and the needs of the organization and will not be addressed by any performance competencies in this FAQS. Position-specific duties and responsibilities for emergency management should be included in other qualification standards and position descriptions.

BACKGROUND AND EXPERIENCE

The knowledge requirements and associated MPAs in the FAQS assume that candidates have the preferred education and experience levels identified below. Personnel assigned to complete this FAQS who do not meet these requirements may need additional developmental assignments and training to satisfactorily complete this FAQS.

The preferred education and experience for emergency management professionals are as follows:

1. **Education**: Bachelor's degree in emergency management, homeland security, or another related field. A master's degree in emergency management or homeland security and/or a professional or industry certification is considered an advantage.

2. **Experience**: Industrial, military, federal, state, or other directly related background that provides specialized experience in emergency management. For example, International Association of Emergency Managers certifications such as Associate Emergency Manager or Certified Emergency Manager meet the intent of specialized general emergency management experience. Specialized experience can also be demonstrated through possession of the competencies outlined in this standard.

REQUIRED PERFORMANCE COMPETENCIES

The performance competencies contained in this FAQS include knowledge requirements that are, in addition to and distinct from, the knowledge requirements contained in The General Technical Base (GTB) Part A and B qualification standard (QS). Emergency management personnel completing initial qualification must satisfy the knowledge requirements of the GTB Part A QS and the knowledge requirements and MPAs in the GTB Part B QS prior to (or in parallel with) attaining the knowledge requirements for the performance competencies in this FAQS. Each performance competency defines the expected level of knowledge and performance an individual must attain to meet the intent of this standard. Each performance competency is further described by knowledge requirements and, if necessary, MPAs that describe the task(s) that must be demonstrated to meet the intent of the related performance competency.

Note 1: When regulations, DOE directives, or other industry standards are referenced in this FAQS, the most recent revision should be used. However, emergency management FAQS participants and QOs should also refer to the versions of requirements included in the local contract during the attainment and verification of related knowledge requirements. Any applicable knowledge requirements in predecessor documents that are not included in this FAQS should be included in the organization-specific QS or continuing training program.

Note 2: If specific evaluation criteria are not identified for any of the MPAs in this FAQS, the following generic evaluation criteria should be used together with any local expectations to verify acceptable completion of the particular MPA.

Generic MPA Evaluation Criteria

- Identify expectations (criteria) for the specific activity.

- Compare results to expectations (criteria) and document conclusions.

- Document the basis for any identified issues or recommendations.

- Discuss, if applicable, how you would communicate results to appropriate Federal and/or contractor personnel.

Program Management and Administration

1. An emergency management specialist must demonstrate knowledge of emergency management program administration.

Knowledge Requirements:
A. Describe the authorities, responsibilities, and activities of the designated emergency management individual.
B. Discuss the DOE roles and responsibilities of the headquarters, field office, and the contractor organization as it relates to emergency management, including integration of activities.
C. Describe how emergency management planning is integrated with other applicable programs and associated documents such as the Baseline Needs Assessment, Site Security Plan, Cybersecurity Plan, Continuity of Operations Plan, and the Documented Safety Analysis.
D. Describe how nuclear safety and emergency management are linked through 10 CFR 830, Subpart B, *Safety Basis Requirements*, including the nine safety management programs required to operate a DOE nuclear facility.

All-Hazards Planning Basis

2. An emergency management specialist must demonstrate knowledge of All-Hazards Planning Basis.

Knowledge Requirements:
A. Describe the site's (or relative assignment's) risk assessment / identification of hazards process such as the All-Hazards Survey and Emergency Planning Hazards Assessment (EPHA).
B. Describe the Protective Action Guides and the development of Protective Action Criteria used at the site (or relative assignment).

Mandatory Performance Activities (MPA)

MPA 2.1: Review the All-Hazards Survey and make a recommendation to the designee for approval.
MPA2.2: Review a site's (or relative assignment's) EPHA and make a recommendation to the designee for approval.
MPA 2.3: Review emergency planning zones (EPZ) and site / response boundary determinations and make recommendations to the designee for approval.

Emergency Response Organization

3. An emergency management specialist must demonstrate knowledge of the site's (or relative assignment's) emergency response organization (ERO).

Knowledge Requirements:
A. Describe the requirements for an ERO structure to include activation and termination, roles and responsibilities, and authorizations and authorities.
B. Describe the site's (or relative assignment's) integration of the site-level and building/location EROs.
C. Identify the ERO members and discuss whether they are appropriately staffed and trained.
D. Describe how the ERO capabilities and resources are based on the All-Hazards Planning Basis.

Emergency Operations System (EOS) / Incident Support System

4. An emergency management specialist must demonstrate knowledge of the site's (or relative assignment's) EOS / Incident Support System.

Knowledge Requirements:
A. Discuss the purpose of, and procedures associated with, the site (or relative assignment) EOS / Incident Support System.
B. Discuss the importance of a common operating picture.
C. Describe how to collect, validate, and analyze hazard incident information.

Training

5. An emergency management specialist must demonstrate knowledge of emergency management training.

Knowledge Requirements:
A. Discuss the purpose of and process for planning and conducting emergency management training.
B. Discuss the worker, ERO, offsite response interfaces / agencies, and visitor training requirements outlined in DOE O 151.1, *Comprehensive Emergency Management System*.

Emergency Medical Support

6. An emergency management specialist must demonstrate knowledge of the site's (or relative assignment's) emergency medical support.

Knowledge Requirement:
A. Discuss the site's (or relative assignment's) emergency medical support, including communication with external partners (onsite and offsite response capabilities, decontamination capabilities, and air evacuation).
B. Discuss capabilities (positive and negative) and the processes/protocols to transport, accept, and treat contaminated or injured personnel.

Offsite Response Interfaces / Agencies

7. An emergency management specialist must demonstrate knowledge of the site's (or relative assignment's) offsite response interfaces / agencies.

Knowledge Requirements:
A. Describe the site's (or relative assignment's) interfaces with local, state, tribal, and federal organizations responsible for emergency response (or that may be used to supplement response capabilities) based on threats / hazards identified in the All-Hazards Planning Basis to include planning for severe incidents.
B. Discuss the process the site (or relative assignment) follows for the development and implementation of agreements with tribal, state, and local authorities, or other agencies.
C. Explain the offsite responder orientation for the lab / plant / site-specific conditions and hazards based on the results of the All-Hazards Planning Basis, including familiarization and required frequency.
D. Explain the site's (or relative assignment's) access protocols for offsite responders during normal and emergency operations.

Emergency Categorization and Classification

8. An emergency management specialist must demonstrate knowledge of emergency categorization and classification.

Knowledge Requirements:
A. Define whether an incident or condition rises to the level of an operational emergency (OE).
B. Discuss the three classification levels.

Mandatory Performance Activity (MPA)

MPA 8.1: Evaluate contractor implementation of emergency categorization and classification in accordance with the site's (or relative assignment's) emergency management plan and DOE O 151.1, *Comprehensive Emergency Management System*.

Protective Actions

9. An emergency management specialist must demonstrate knowledge of protective actions.

Knowledge Requirements:
A. Discuss the development, identification, application, and communication of protective actions.
B. Define the protective actions and the process for personnel accountability applicable to the site (or relative assignment).
C. Discuss protective action recommendations to appropriate offsite response agencies for general public implementation.

Mandatory Performance Activity (MPA)

MPA 9.1: Evaluate contractor implementation of protective actions in accordance with the site's (or relative assignment's) emergency management plan and DOE O 151.1, *Comprehensive Emergency Management System.*

Consequence Assessment

10. An emergency management specialist must demonstrate knowledge of consequence assessment.

Knowledge Requirements:
A. Discuss the consequence assessment process as it relates to the Emergency Action Level, timely initial assessment, and the continuous ongoing assessment.
B. Interpret consequence assessment modeling products.
C. Identify internal and external resources available to maintain consequence assessment and atmospheric dispersion modeling.
D. Discuss field monitoring capabilities.

Emergency Facilities, Equipment, and Systems

11. An emergency management specialist must demonstrate knowledge of the site's/location's emergency facilities, equipment, and systems.

Knowledge Requirements:
A. Describe personal protective equipment available at the site (or relative assignment).
B. Discuss communications equipment, testing, and maintenance at the site (or relative assignment).
C. Describe the purpose of a Joint Information Center.
D. Discuss the habitability of the site's (or relative assignment's) emergency facilities.

Notifications and Communications

12. An emergency management specialist must demonstrate knowledge of the site's (or relative assignment's) emergency management notifications and communications.

Knowledge Requirements:
A. Describe the site's (or relative assignment's) initial and follow-up emergency notification processes to include required information for both internal and external stakeholders.
B. Discuss communication processes for both internal and external stakeholders for the site (or relative assignment) to include how both classified and unclassified information is addressed.

Emergency Public Information

13. An emergency management specialist must demonstrate knowledge of the site's (or relative assignment's) emergency public information.

Knowledge Requirements:
A. Describe the requirements for an emergency public information program in an emergency management plan.
B. Discuss the process for disseminating and monitoring information to the public during an incident.
C. Discuss the role of social media during incident response.

Emergency Termination and Recovery

14. An emergency management specialist must demonstrate knowledge of emergency termination and recovery.

Knowledge Requirements:
A. Discuss the criteria and procedures to terminate an OE at the site (or relative assignment).
B. Discuss the transition between response and recovery.
C. Discuss the procedures for recovery.

Readiness Assurance

15. An emergency management specialist must demonstrate knowledge of readiness assurance.

Knowledge Requirements:
A. Discuss the site's (or relative assignment's) evaluation program.
B. Discuss the site's (or relative assignment's) issues management program.
C. Describe the Emergency Readiness Assurance Plan (ERAP).

Mandatory Performance Activity (MPA)

MPA 15.1: Evaluate / participate in an emergency management assessment or an exercise.
MPA 15.2: Review and recommend approval, as necessary, of an emergency management lab, plant, or site corrective action plan.
MPA 15.3: Review and recommend approval of the annual evaluated site-level exercise plan.
MPA 15.4: Review and recommend approval of the annual ERAP.

APPENDIX A

INITIAL QUALIFICATION TRAINING RECOMMENDATIONS

Technical education and/or training may include courses/trainings provided by the DOE, other government agencies, outside vendors, or local educational institutions. Training topics should also address weaknesses identified in the knowledge and/or skills of the individual personnel and current technical issues related to the associated FAQS.

Performance Competency	Training Courses & DOE References
Program Management and Administration **1.** An emergency management specialist must demonstrate knowledge of emergency management program administration.	• FEMA IS-230 • DOE O 450.2, ISM • CUI-100DE • DOE O 226.1, SD 226.1 • NTC EMG-101DE
All-Hazards Planning Basis **2.** An emergency management specialist must demonstrate knowledge of the All-Hazards Planning Basis.	• Courses on EPICode, Hotspot, NARAC, CAMEO https://www.epa.gov/cameo. • ALOHA (part of CAMEO) https://www.epa.gov/cameo/aloha-software. • NTC SBA 120–160 courses • NTC EMG-120DE, 200DE, 210DE, 220DE • 10 CFR 830
Emergency Response Organization **3.** An emergency management specialist must demonstrate knowledge of the site's/location's ERO.	• IS-100, 200, 700, 800, 2200 • ICS-300, 400 • NTC EMG-130DE
Emergency Operations System (EOS) / Incident Support System **4.** An emergency management specialist must demonstrate knowledge of the site's/location's emergency operations system.	• IS 100, 200, 700, 800, 2200 • ICS 300, 400 • G191 • K2300 • NTC EMG-101DE
Training **5.** An emergency management specialist must demonstrate knowledge of emergency management training and drills.	• DOE HDBK 1074
Emergency Medical Support 6. An emergency management specialist must demonstrate knowledge of the site's/location's emergency medical support.	• NTC EMG-101DE
Offsite Response Interfaces / Agencies **7.** An emergency management specialist must demonstrate knowledge of the site's/location's offsite response interfaces.	• NTC EMG-101DE
Emergency Categorization and Classification **8.** An emergency management specialist must demonstrate knowledge of emergency categorization and classification.	• IS 5.A • NTC EMG-Response Planning

Performance Competency	Training Courses & DOE References
Protective Actions **9.** An emergency management specialist must demonstrate knowledge of protective actions.	• NTC EMG-101DE
Consequence Assessment **10.** An emergency management specialist must demonstrate knowledge of a consequence assessment.	• LLNL NARAC course • NTC EMG-101DE
Emergency Facilities, Equipment, and Systems **11.** An emergency management specialist must demonstrate knowledge of the site's/location's emergency facilities, equipment, and systems.	• Review of 29 CFR 1910 H and I (personal protective equipment requirements) • FEMA NIMS Emergency Operations Center How-to Quick Reference Guide • FEMA EOC Quick-Reference-Guide Virtual Considerations • NTC Course EMG-101
Notifications and Communications **12.** An emergency management specialist must demonstrate knowledge of the site's/location's emergency management notifications and communications.	• NTC EMG-101DE
Emergency Public Information **13.** An emergency management specialist must demonstrate knowledge of emergency public information.	• IS-29 • NTC Course EMG-101DE
Emergency Termination and Recovery **14.** An emergency management specialist must demonstrate knowledge of emergency termination and recovery.	• FEMA IS-2900 • NTC EMG-101DE
Readiness Assurance **15.** An emergency management specialist must demonstrate knowledge of readiness assurance.	• FEMA IS-120 • FEMA IS-130 • NTC EMG-110DE • EXE-331, Exercise Manager

FEMA Courses	
G-191	Incident Command System / Emergency Operations Center Interface
IS-5	An Introduction to Hazardous Materials
IS-29	Public Information Officer Awareness
IS-100	Introduction to the Incident Command System
IS-120	An Introduction to Exercises
IS-130	How to be an Exercise Evaluator
IS-200	ICS for Single Resources and Initial Action Incidents
IS-230	Fundamentals of Emergency Management
ICS-300	Intermediate ICS for Expanding Incidents
ICS-400	Advanced ICS for Command and General Staff
IS-700	National Incident Management System, An Introduction
IS-800	National Response Framework—An Introduction
IS-2200	Basic Emergency Operations Center Functions
IS-2900	National Disaster Recovery Framework—An Introduction
K-2300	Intermediate Emergency Operations Center Functions

NTC EMG Courses	
EMG-101DE	Foundation of DOE Emergency Management System
EMG-110DE	Readiness Assurance
EMG-120DE	All-Hazards Survey
EMG-130DE	Emergency Response Elements
EMG-200DE	Fundamentals of Emergency Planning Hazard Assessments
EMG-210DE	Consequence Assessment
EMG-220DE	Source Term

APPENDIX B

CONTINUING TRAINING RECOMMENDATIONS

Emergency management oversight personnel must participate in a continuing training and qualification program that includes the following elements:

1. Continuing technical education and/or training covering topics directly related to the Emergency Management FAQS, as determined by management. This may include courses/training provided by the DOE, other government agencies, outside vendors, or local educational institutions. Continuing training topics should also address identified weaknesses in the knowledge or skills of the individual personnel.

2. Specific continuing training requirements must be documented in individual development plans.

NOTE: There are many external providers who provide industry training. Some of those providers are listed below.

- FEMA EMI Training (https://training.fema.gov/emi.aspx)
    - L/K 0146—Homeland Security Exercise and Evaluation Program
    - Planning practitioner Program
    - Master Exercise Practitioner Program
    - Public Information Officer Program
    - Emergency Management Professional Program
- TEEX: Texas A&M Engineering Extension Service
- Training: Safety—Naval Postgraduate School (nps.edu)
- Crisis Leadership Training Program at Harvard—Harvard T. H. Chan School of Public Health