**U.S. DEPARTMENT OF ENERGY**
**OFFICE/FACILITY-SPECIFIC**
**QUALIFICATION STANDARD**

# OFFICE OF ENVIRONMENTAL MANAGEMENT

**OAK RIDGE OPERATIONS OFFICE**
**MAY 1999**
**REVISION 0**

## CONCURRENCE AND APPROVAL

The DOE-Oak Ridge Operations' Office (ORO) Office of Environmental Management (EM) is the sponsor for this EM Qualification Standard. The EM management team is responsible for reviewing the qualification standard to ensure that the technical content is accurate and adequate for its intended application and for ensuring that the qualification standard is maintained current. Concurrence with this qualification standard by the EM management team is indicated by the signatures below.

The Training and Development Group (TDG) Group Leader coordinates implementation of the technical qualification program and assists line managers in the development of ORO office/facility-specific qualification standards. Concurrence with this qualification standard by the TDG Group Leader is indicated by signature below.

The ORO Assistant Manager for Environmental Management (AMEM) is the approval authority for this qualification standard. Approval of this qualification standard by the AMEM is indicated by signature below.

**CONCURRENCE:**

| | | |
|---|---|---|
| Timothy Noe, Leader, Facility Representatives Group | Date | |
| Steve McCracken, Leader, WSSRAP Group | Date | |
| Cavanaugh Mims, Leader, Environmental Technology Group | | Date |
| Robert Sleeman, Leader, Environmental Services Group | | Date |
| Lester Price, Acting Leader, ORR Remediation Management Group | | Date |
| Jim Vosburg, Leader, Training and Development Group | | Date |

**APPROVAL:**

| | | |
|---|---|---|
| Rodney Nelson, Assistant Manager for Environmental Management | Date | |

## About This Standard:

The EM Office/Facility-Specific Qualification Standard is part of the Technical Qualification Program (TQP) required by DOE Order 360.1, *Training*, and supplements the department-wide General Technical Base and functional area qualification standards. It contains the competency requirements that EM staff assigned to the Technical Qualification Program need (as a composite) in order to perform assigned activities. Documented satisfactory completion of the competencies contained in this qualification standard ensures that the EM Technical Qualification Program staff is qualified to fulfill their duties and responsibilities.

The competency statements define the expected capabilities that an individual must possess. Each of the competency statements is followed by a listing of supporting knowledge and skill statements that further amplify and describe the intent of the competency. The supporting knowledge and skill statements are not additional requirements and do not necessarily have to be fulfilled to meet the intent of the competency.

The competencies identify a familiarity level, a working level, or a demonstration of ability. *Familiarity level* is defined as a 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 Department activities. *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.

## Completion of Competencies

Exemptions are not to be used in this phase of the qualification program. The competencies listed in this standard represent a core of knowledge and skills necessary for Oak Ridge Operations EM qualification. Individual areas of expertise may be documented by adding any of the TQP functional area standard competencies on the employee's technical qualification record. However, these added competencies are considered developmental in nature and are not required.

Equivalencies may be granted for individual competencies based upon an objective evaluation of the employee's prior education, training, and/or experience. Documentation of equivalencies indicates how the competency requirements have been met. The supporting knowledge and skill statements should be considered when evaluating an employee's ability with respect to each competency requirement.

Verifying and documenting that the competencies have been met may be accomplished by the EM management team, or by a subject matter expert (SME) designated by the EM management team. Although the evaluation may be documented (evaluator notes, certificates of course completion, test reports, etc.), the supervisor's signature on the Technical Qualification Record is necessary to show completion of the competency.

Any of the following methods may be used to fulfill incumbent competency. Each fulfillment method is required to be documented.

- Formal education (college courses and academic degrees)
- Training (DOE, DOE contractor, other agency, vendor)
- DOE experience/on-the-job training
- Equivalencies for prior experience, education, and training
- Documented oral evaluation
- Documented observation of performance
- Written examination (including test out)

**The Competencies**

**1. Environmental Management personnel will demonstrate a familiarity level knowledge of the basic operations and processes for DOE Oak Ridge defense nuclear facilities.**

Supporting Knowledge and/or Skills

a. Discuss the primary mission(s) of ORO defense nuclear facilities (e.g., Y-12, ORNL Building 3019, ETTP, and Paducah and Portsmouth gaseous diffusion plants).

b. Describe some of the key operations processes performed at ORO defense nuclear facilities.

c. Discuss the major nuclear safety risks to workers and the public resulting from operations at ORO defense nuclear facilities.

d. Identify the major non-nuclear hazards associated with ORO defense nuclear facility operations.

**2. Environmental Management personnel will demonstrate the ability to provide subject matter expertise on environmental management technical and regulatory issues.**

Supporting Knowledge and/or Skills

a. Review and comment on draft DOE orders, policies, and procedures for their area of expertise. Assess potential impact of changes or additions.

b. Participate in decisions on environmental technology applications, project priorities, directions, findings, etc.

c. Provide other ORO organizations with technical assistance in data analysis, problem solving and decision making on environmental related issues.

d. Evaluate TQP participants in EM-related competencies.

e. Mentor new Federal employees to support continued technical growth.

f. Develop and/or conduct training in technical subject areas.

**3. Environmental Management personnel will demonstrate a familiarity level knowledge of the relationship between the DOE and state and local regulations and laws, including Federal Facilities Agreements (FFAs).**

Supporting Knowledge and/or Skills

a. Discuss and describe the relationship between DOE and state and local regulations and laws.

b. State the purpose and applicability of the above regulations.

c. Compare and contrast the respective roles of a contractor's operations organization(s) and DOE personnel as outlined in each of the above regulations.

d. Describe and provide examples of effective interactions between state and Federal agencies.

**4. Environmental Management personnel will demonstrate a familiarity level knowledge of emerging regulatory issues within DOE.**

Supporting Knowledge and/or Skills

a. Describe the purpose and activities of the DOE and ORO "Accelerating Cleanup: Paths to Closure" initiative.

b. Describe safety management initiatives resulting from DNFSB Recommendation 95-2, *Integrated Safety Management*.

c. Explain the impact of rule making on DOE and its contractors and the basic process of implementing rules.

d. Discuss the Work Smart Standards approach as it relates to compliance.

e. Discuss ORO's use of the Standards/Requirements Identification Documents.

f. Discuss ORO EM's basic components of the Environmental Management System (EMS).

g. Discuss the key components of the ORO Pollution Prevention Program.

**5. Environmental Management personnel will demonstrate a working level knowledge of the process for transition of defense nuclear facilities to the EM domain.**

Supporting Knowledge and/or Skills

a. Describe the kinds of ORO facilities that are subject to transition into the EM domain.

b. Describe the more common conditions, risks, and hazards these facilities contain.

c. Explain the major requirements for transition of an ORO facility from Defense Programs to EM management.

d. Discuss the EM controls, systems, and programs for ensuring that risks and hazards present in transitional facilities are properly identified and managed throughout the transition process.

**6. Environmental Management personnel will demonstrate a working level knowledge of the Department of Energy Oak Ridge Operations EM Self-Assessment Program.**

Supporting Knowledge and/or Skills

a. Discuss the purpose, scope, and applicability of self-assessments within EM.

b. Explain how Quality Assurance principles and practices are applied in the conduct of self-assessments.

c. Describe how self-assessments improve safety and provide lessons learned.

d. Conduct a self-assessment of an EM activity to determine status or acceptability.

e. Document strengths, weaknesses, and improvement areas identified during self-assessment activities.

f. Describe how EM uses feedback from self-assessments to plan work process improvements or take other actions to eliminate non-conformance.

g. Discuss the purpose and value of using prescribed measures of performance.

h. Participate in data gathering, analysis, measurement, and assessment of the information used to measure performance for EM activities.

i. Describe the results and significance of EM performance measures.

**7. Environmental Management personnel will demonstrate a working level knowledge of the process to monitor contractor project activities.**

Supporting Knowledge and/or Skills

a. Act as the principal liaison between contractor and DOE identifying contractor deliverables, objectives, timeliness, assumptions, constraints, and priorities for EM projects.

b. Read, interpret, and evaluate the following project control measures and tools.
- Gantt (bar) charts
- Critical path networking techniques
- Labor schedules
- Material equipment schedules
- Finance schedules

**Competency 7 cont'd.**

c. Discuss *stop work* authority and responsibility for site safety.

d. Describe EM responsibilities for monitoring the M&O or M&I contractor to ensure compliance with the technical, safety, and administrative requirements of the contract.

e. Formulate, analyze, and approve or disapprove plans and schedules.

f. Describe EM's responsibility to ensure continuity in performance and information exchange among project team participants.

g. Discuss how EM project managers ensure project cost, schedule and scope requirements are met.