

**U.S. DEPARTMENT OF ENERGY
THOMAS JEFFERSON SITE OFFICE**

**TECHNICAL COMPETENCY PROGRAM
PROCEDURE**

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Record of Revisions

00.0 This is the original version of the TJSO TCP Procedure.

Distribution List

All TCP participants shall be provided electronic copies of this document, and notified that it is posted on the TJSO web site.

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TECHNICAL COMPETENCY PROGRAM PROCEDURE

1.0 OBJECTIVE

The objective of the Thomas Jefferson Site Office (TJSO) Technical Competency Program (TCP) is to ensure that personnel with line environmental, safety, and health (ES&H), and security responsibilities possess “competence commensurate with responsibilities” by formally establishing training and qualification requirements.

2.0 SCOPE

This TCP procedure applies to the Site Office Manager, Deputy Site Office Manager, Federal Project Directors (FPDs), and those involved with ES&H or security oversight of TJNAF facilities and operations. This procedure and flow-down documents (such as qualification cards) address:

- Federal/State regulations, DOE and Office of Science (SC) rules, policies, and directives;
- TJSO internal processes and procedures; and
- TJNAF management systems, documents, and facilities.

3.0 REFERENCES

DOE O 226.1A, “Implementation of Department of Energy Oversight Policy” (July 31, 2007)

DOE M 360.1-1B, “Federal Employee Training Manual,” (October 11, 2001)

DOE O 360.1B, “Federal Employee Training,” (October 11, 2001)

DOE O 414.1C, “Quality Assurance,” Section 4 (Requirements), b (Quality Assurance Criteria), (2) Management / Criterion 2 – Personnel Training and Qualification (June 17, 2005)

DOE-HDBK-1078-94, DOE Training Program Handbook: A Systematic Approach to Training

DOE Technical Personnel Functional Area Qualification Standards (various)

Office of Science (SC) “Management System Description for Environment, Safety, and Health” (August 28, 2007), at

http://scms.sc.doe.gov/orbitsearch/MSD/ESH/ESH_MS.cfm

SC Functions, Responsibilities, and Authorities Manual (FRAM) at

http://scms.sc.doe.gov/OrbitSearch/ProgDesc/SCFRA/SCFRA_Exh2.doc

TJSO SOPP 4.10, Thomas Jefferson Site Office “Functions, Responsibilities, and Authorities Manual”

4.0 RESPONSIBILITIES

4.1 TJSO Site Office Manager

- Selects TJSO technical employees, based on job responsibilities, for enrollment in the TCP.
- Approves all related TCP implementing processes and documents.
- Performs responsibilities identified in supporting documents, e.g., approves requests for time extensions.
- Ensures that the TCP is fully implemented, as described in this Procedure.
- Certifies, based on a record of completion review by the TJSO Deputy Site Office Manager, that the employee has achieved the required level of competence.
- Ensures resources are available to support participant qualification.
- Ensures a balanced level of competence is maintained across TJSO to meet the diverse programmatic and mission needs.
- Ensures that changes to the TCP Procedure are consistent with DOE, SC, and TJSO policy, and can be effectively implemented. Supports integration of the TCP with the FRAM and office-wide systems.
- Approves Office/Facility-Specific Technical Qualification Standards.

4.2 TJSO Deputy Site Office Manager

- Oversees the implementation of the TCP program to ensure conformance to TCP goals and underlying requirements.
- Obtains technical support as needed, such as subject matter experts (SMEs) to serve as Qualifying Officials (QOs), and approves the list of QOs.
- Reviews TCP participant position descriptions to ensure TCP designations are included.
- Ensures the TJSO TCP has an appropriate amount of formality and rigor, and requires a satisfactory demonstration of competence for qualification.
- For positions which are in the TCP, designates the Functional Area Qualification Standard and the level of competence required for each position, based upon employee responsibilities.
- Ensures the TJSO TCP follows a consistent approach in implementation across the office.
- Ensures that TCP participant needs are addressed in employees' Individual Development Plans.

- Ensures that employees are properly qualified and determine when employee duties require limitations. Provides adequate time to employees for qualification, approving time extensions where necessary and justified.
- Following a record of completion review, recommends the employee who has achieved the required level of competence to the Site Manager for certification. In the case of the Site Manager, the Deputy Site Office Manager will recommend certification of the Site Manager to the SC Chief Operating Officer.

4.3 TJSO TCP Coordinator

- Administers the TCP.
- Maintains the list of TCP participants.
- Monitors employee progress towards qualification on the TCP.
- Provides TCP status reports to TJSO management.
- Maintains all necessary TCP documents, including tests, training course certification and test scores, records of completion, procedures, etc., in a central repository.

4.4 ORO TCP Coordinator

- Assists in the development of participant qualification cards.
- Reviews TCP completion records for completeness and consistency.
- Provides guidance, as needed, on best practices for and Office of Science technical qualification requirements and processes.
- Assists in obtaining Qualifying Officials for TCP participants.

4.5 Subject Matter Experts and Supervisors as Qualifying Officials (QOs)

SMEs are drawn from TJSO, SC Integrated Support Centers (Oak Ridge and Chicago), other field offices, and Headquarters. SMEs and supervisors may perform any or all of the following QO duties:

- Assist in the development and presentation of learning activities. Maintain awareness and recommend high quality classes or instructors, and effective learning activities.
- Develop evaluation materials, including examination bank questions, for their assigned area of expertise.
- Perform evaluations and sign off participants' completed competencies on qualification cards (also known as qual cards), within assigned areas.
- Maintain technical skills and knowledge. Stay current with the status of assigned functional area qualification standard revisions.

- Keep the Deputy Site Office Manager informed on issues regarding participants' performance on evaluations.

4.6 TCP Participants

- Identify and complete the learning activities necessary to achieve competency, indicate necessary training on their Individual Development Plan (IDP), and indicate proposed methods of learning on their Qual Card. Indicate on training requests (in the justification section) those courses related to the TCP.
- Complete qualification within the specified time limits (i.e., eighteen months unless otherwise specified). Bring issues preventing participants from completing the qualification to the attention of the Deputy Site Office Manager, who may coordinate with the Site Office Manager for resolution.
- Inform their supervisor(s) if they are not qualified to perform assigned duties.
- Participants who have achieved related qualification elsewhere should provide the required documentation of competence to the Deputy Site Office Manager for review and transferability determination.

5.0 PROCEDURE

5.1 Identification of Positions

TJSO Employees with responsibilities for ES&H or Security oversight of facilities or programs at TJNAF are identified in the TJSO FRAM. The TJSO Site Manager, using the FRAM as a basis, identifies those positions that are assigned such safety or security-related responsibility as being required to participate in the TCP. This will be indicated in the individual's IDP. The process for assigning individuals or positions in the TCP is described below.

- The Deputy Site Office Manager assigns the employee to the TCP by means of an assignment memo to the employee. The assignment memo includes a statement regarding assignment to the TCP, an attached qualification card, and the qualification time limit of 18 months.
- The position's inclusion in the TCP is specified in the introduction to the PD ("This position requires the incumbent to have completed the assigned Technical Competency Program qualification standards within 18 months of assignment").
- If there are changes in responsibilities identified in the FRAM, or changes in positions with responsibility for ES&H or security oversight of facilities covered by the JSA contract for the management and operation of TJNAF, or additional positions are identified with such responsibility, the Deputy Site Office Manager coordinates with the HR personnel specialist to ensure proper documentation.
- After the assignment memo is issued, a qualification card is prepared for the individual. The Deputy Site Office Manager works with the employee to ensure that the pertinent standards, competencies, and levels of each competency required for the position are tailored to the job responsibilities.

5.2 Transfer of Technical Qualifications from Other Offices

When an employee transfers from another office, he/she may request that the Deputy Site Office Manager conduct a review of their previous qualifications, to determine which are transferable to the TJSO TCP. The Deputy Site Office Manager may consult with SMEs or QOs for determination of applicability and/or equivalency. Transfer of qualifications is at the discretion of the Deputy Site Office Manager.

5.3 Determination of Qualification Standard

There are three levels of qualification standards. The Qualification Standards are a combination of the General Technical Base Qualification Standard, Functional Area Qualification Standards, and Office-Specific Technical Qualification Standards. The Deputy Site Office Manager creates a composite of competencies (that is, a position qualification card) from one or more Functional Area Qualification Standards Qualification Standards for each position. In some cases, additional competencies will be necessary to further tailor the Qualification Standards to the assigned duties.

The Deputy Site Office Manager approves the level of competence required for positions in the TCP.

5.4 Equivalencies

Equivalencies may be used as a method of fulfillment of competencies and can include relevant prior education, experience and/or learning activities. Documented, objective evidence of equivalencies must indicate how each competency has been met. The equivalency evidence may be evaluated by a QO or SME on the qualification card.

No equivalency will be granted for training required by regulation (i.e., regulatory training requirements must be met as specified in the requirement).

5.5 Learning Activities

The method of learning must be tailored to the required knowledge level for each competency within each qualification standard; the knowledge levels include familiarity level, working level, and expert level.

The employee, in coordination with his/her supervisor or with the Deputy Site Office Manager, determines the best method, which may include equivalency, formal training, self-study, mentoring, and/or on-the-job training, for satisfying the competency for each qualification standard. Future learning activities may be entered into a participant's Individual Development Plan. Once completed, learning activities are documented on the participant's qual card.

Formal Training

Some types of formal training courses may fulfill the competencies within the qualification standards. The employee may consult with the QOs or Deputy Site Office Manager to decide whether a particular training course is appropriate for the given competency. Among other considerations, it should be consistent with employee's required knowledge level for meeting the competency. The QOs and Deputy Site Office Manager can provide assistance by recommending appropriate existing courses.

Some courses may be developed and tailored to TJSO's needs while others, such as the Jefferson Lab (contractor) courses, may be adopted for TJSO's use.

Self-Study, Mentoring and On-the-Job Training

Many times competencies can best be learned through self-study, mentoring, and on-the-job training. The employee should work with the supervisor and the appropriate SME to obtain the materials and activities required for these types of learning activities.

5.6 Evaluation

At completion of single or groups of competencies, the employee will be evaluated against those competencies. Written examinations, oral examinations, interviews, and performance demonstrations are options that may be used by the supervisor or QO. Refer also to the Qualifying Official Job Aid in Attachment 2.

Evaluation of Competencies

Generally, formal training courses that are being used for competency fulfillment have an evaluation component that will constitute evidence of competency attainment. The course certificate will be documented on the qual card. A QO will sign off the competency to verify that the course has met the requirements of the competency.

Evaluation of equivalencies will require the use of the QO or SME or supervisor. These evaluations may take the form of oral interviews conducted over the phone, on-site walkthroughs, written examinations, or some other appropriate method. Best practices and resources should be used in the conduct of these evaluations, and assistance about how to best accomplish the evaluation may be requested of the Deputy Site Office Manager. Such resources include the DOE standards (as DOE-HDBK-1078-94) and staff at the SC Integrated Support Center.

Based on the recommendation of the QO or SME, employees who do not successfully complete an evaluation shall receive supplemental learning activities. Upon completion, the employee shall be re-evaluated.

The Deputy Site Office Manager will review the training and qualification record of any employee who has demonstrated a consistent inability to successfully complete competency evaluations and determine if the employee should continue efforts toward qualification.

The TJSO TCP Coordinator will retain the actual evaluation results (or any other evaluation notes) in a secure location.

5.7 Qualification Approval Process

Once the participant has completed the qualification card and the final check-out has been performed, the Deputy Site Office Manager will:

- Submit the qual card and evidence package to the ORO TCP Coordinator for a completeness review. If satisfactory, then
- Conduct a completion review, which may include a supplemental evaluation. If satisfactory, then
- Submit the qualification card and package to the Site Manager with a recommendation for final certification. In the case where the Site Manager is the participant, the Deputy Site Office Manager will recommend his/her approval to the SC Chief Operating Officer (COO) or designee.

5.8 Time Limits

Once an employee's Position Qualification Card has been established, the employee has 18 months to complete the qualification process. The Site Manager or Deputy Site Office Manager may approve extensions to the time limits based upon satisfactory written justification.

The Deputy Site Office Manager will establish an appropriate qualification time limit for an employee who transfers positions.

The Deputy Site Office Manager will periodically review employee qualification progress and take appropriate actions to provide the employee adequate time for qualification, limit the employee duties if necessary, or approve an extension of the time limit.

5.9 Requalification

When a TCP participant is away from the job under which they were qualified for an extended time (twelve months or longer), the employee will meet with the Deputy Site Office Manager to determine whether any additional training or requalification is required to maintain competence; otherwise, requalification for TCP participants is not required.

5.10 Duty Limitations

During qualification or requalification, the Deputy Site Office Manager should determine whether an employee can provide direct feedback to the contractor or oversight of contractor activities that could impact the safe and secure operations at DOE facilities. In most cases, an employee in the qualification and requalification process will continue with assigned duties while they complete their qualification or

requalification. In the case where an employee is found not qualified until completion of qualification or requalification, assigned duties will be limited.

Compensatory measures:

- **Site Office Manager:** In limited cases, a Site Office Manager who has the broad expertise needed for the position may have limited technical expertise for safety and security responsibilities. In such a case, a senior TJSO employee (e.g., Deputy) who directly reports to the manager and who meets educational and experience requirements must be identified as assuming the safety and security responsibilities for the Site Office Manager. This assumption of responsibilities shall be documented in a memo to the SC Chief Operating Officer.
- **Other employees:** When assigned duties are limited, the Deputy Site Office Manager must clearly delineate compensatory measures such as accompaniment by other technical staff on walkthroughs, or staff concurrence on work products. Until the completion of qualification or requalification, the employee may work under the direct supervision of an experienced technical employee in that subject area.

5.11 Continuing Education

An employee must complete all training required by regulation within the specified time limits, e.g., Hazardous Waste Operations and Emergency Response Training, General Employee Radiological Training, etc. Qualification under the TCP doesn't relieve an individual of completing training required by regulation or facility requirements.

Federal Project Directors are required through the Project Management Career Development Program (PMCDP) to complete specified hours of continuing education every two years. Dual monitoring under the TCP is not required; the PMCDP requirement meets the TCP requirement.

5.12 Administration

The TJSO TCP Coordinator administers the TCP, which includes, but is not limited to, the following tasks:

1. Maintaining all necessary TCP documents.
2. Coordinating feedback and improvement efforts on the TCP.

Documentation of Learning Activities:

- Individual Development Plans (IDPs) are established and updated annually. The IDPs reflect employee training or learning activities required or recommended during the performance review, including those activities required under the TCP.

- Qualification Records, including qual cards, are provided to each TCP participant by the Deputy Site Office Manager. Each participant should ensure they are maintained under secure conditions.

ATTACHMENT 1 -- Acronyms and Definitions

Acronyms

DOE	Department of Energy
ES&H	Environment, safety, and health
FRAM	Functions, Responsibilities, and Authorities Manual
IDP	Individual Development Plan
ISMS	Integrated Safety Management Systems
PMCDP	Project Management Career Development Program
QO	Qualifying Official
S&S	Safeguards and security
SC	DOE Headquarters Office of Science
SME	Subject Matter Expert
STSM	Senior Technical Safety Manager
TCP	Technical Competency Program
TJNAF	Thomas Jefferson National Accelerator Facility
TJSO	Thomas Jefferson Site Office

Definitions

Continuing Training is the program to maintain proficiency for technical qualification.

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

Equivalency is defined as satisfactorily meeting a specific competency through prior training, education, or experience that provides knowledge, skill and ability of equal value to that acquired by training or other learning activities.

Evaluation is defined as the process of assessing the knowledge, skill and ability of a candidate based upon required competencies and qualification standards.

Examination Bank is a document or database containing questions and answers necessary to create a written or oral examination for competencies and qualification standards.

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

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.

Functional Area Qualification Standards build on the requirements of the general technical base qualification standard and establish functional competence requirements in each of the identified functional areas.

General Technical Base Qualification Standard establishes the base technical competency required for all DOE technical personnel.

Individual Development Plan (IDP) is a written schedule or plan designed to meet particular goals for individual employee development that are aligned with the organization's strategic plan.

Office/Facility-Specific Qualification Standards establish unique operational and administrative competency requirements at the office level.

Qualification is the total of education, experience, learning experience and other special requirements that provide the employee with the competencies required to perform the duties for their positions.

Qualification Card (or Qual Card) is the record of an individual participant's assigned competencies, planned method of learning, and means of demonstrating competence. Each signature of an approved Qualifying Official on the Qual Card is official evidence of demonstrated competence.

Qualifying Official is an individual, designated by the Deputy Site Office Manager or designee, authorized to sign the Qualification Card after verifying the candidate possesses the appropriate level of knowledge or skills for such signature.

Subject Matter Expert is a person who currently is involved in activities related to the subject matter and has sufficient technical knowledge, skill and ability and understanding to provide learning activities and perform evaluations in the subject matter.

Technical Position is a position which provides management direction or oversight of contractor activities that could impact the safe operation of DOE facilities.

Technical Qualification Record is a document used to record an employee's requirements for qualification and progress toward completion of those requirements.

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 and security of activities.

ATTACHMENT 2 – Qualifying Official Job Aid

Job Aid Purpose	To assist subject matter experts (SMEs) and managers as qualifying officials (QOs) in preparing and conducting the evaluations or check-outs of the TCP participants' competencies.
QO Responsibilities	To determine that the TCP candidate demonstrates the appropriate level of knowledge and skills that will fulfill the requirements of the competency listed in the qualification card (qual card).
Steps	Process
Prepare for the evaluation	<ol style="list-style-type: none"> 1. QOs should try to evaluate candidates to the best of their ability. However, if a QO does not possess the technical knowledge in a given area, assistance in planning the evaluation should be requested from other QOs or from subject matter experts who are knowledgeable of the competency requirements. 2. Review the applicable qualification requirements and references (i.e., the qual card and supporting knowledge and skill statements described in the competencies of the applicable DOE Functional Area Qualification Standard [these FAQs are shown in the qual card header]) for the candidate. 3. Prepare the necessary evaluation questions that will be asked of the candidate during the check-out or walk-through evaluation. This may be as informal as highlighting areas of a DOE directive to quiz the candidate.
Conduct the evaluation	<ol style="list-style-type: none"> 1. For each competency, ask the prepared questions to assess the candidate's knowledge or skill. This can be done in an office or during a facility walk-through. 2. Probe as necessary to adequately assess the knowledge or skill level. 3. At the completion of the discussion for each requirement, determine whether or not the candidate's responses adequately meet the qualification requirement. 4. Sampling the competency's supporting knowledge and skills is a good practice. Also, pulling related questions from the candidate's evidence package will provide a good and fair evaluation. How this is done is at the discretion of the QO.
Complete the evaluation	<p>Unsatisfactory Rating:</p> <p>If the candidate needs additional study or practice (or rated "unsatisfactory"), inform the candidate, assist in identifying remedial activities, and reschedule the evaluation.</p> <p>Satisfactory Rating:</p> <p>If the candidate has responded satisfactorily, sign the qual card indicating your affirmation of the candidate's fulfillment of the knowledge and skill level required by the competency in the qual card.</p>

**File the
documentation**

A signature on the qual card or on an electronic facsimile, or an e-mail noting the results of the evaluation are the options available to the QO for documenting the evaluation. The candidate retains the original qual card. The completed qual card and evidence package is forwarded by the candidate to the Deputy Site Office Manager, who in turn forwards the qual card and evidence package to the ORO TCP Coordinator for a completeness review. Once done, the Deputy Site Office Manager processes the qualification card for certification by the Site Office Manager.
