

DEPARTMENT OF ENERGY
Thomas Jefferson Site Office

TJSO Office/Facility-Specific
Qualification Standard

CONCURRENCE:



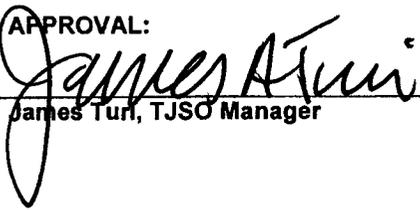
ORO TCP Coordinator

4.23.08
Date



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Revision Log

Revision No.	Description of Change	Effective Date
0	Initial issue.	4/22/08

Document Owner

TJSO Deputy Site Office Manager

Distribution List

All TCP participants shall be provided electronic copies of this *TJSO Office/Facility-Specific Qualification Standard*, and notified that it is posted on the TJSO web page.

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1.0 PURPOSE

The primary purpose of the Technical Competency Program (TCP) is to ensure that employees have the requisite technical competency to support the mission of the Department. The Technical Competency Program forms the basis for development and assignment of DOE personnel responsible for ensuring the safe operation of facilities, analytical procedures and other activities.

The Thomas Jefferson Site Office (TJSO) Office/Facility-Specific (OFS) Qualification Standard establishes common Office/Facility-specific competency requirements for selected TJSO employees.

Satisfactory and documented attainment of the competency requirements contained in this Standard ensures that the TCP participants possess the minimum requisite competence to fulfill their duties and responsibilities in alignment with office policies and procedures. This Office/Facility-Specific Qualification Standard supplements the General Technical Base Qualification Standard and the tailored Functional Area Qualification Standards, and establishes unique operational competency requirements at the office, site, laboratory, or facility level.

2.0 APPLICABILITY

This OFS standard applies to all identified TJSO participants in the TCP. Specifically, this standard applies to individuals who provide assistance, direction, guidance, oversight, or evaluation of contractor technical activities impacting the safe operation of facilities containing hazardous processes or materials. The TCP satisfies technical qualification requirements for activities related to safety including occupational safety and industrial hygiene, safeguards and security, environmental management and compliance, radiation protection, transportation and waste management, construction, facility maintenance, quality assurance, engineering, deactivation and decommissioning and other functional area qualification standards related to duties and responsibilities assigned to TJSO personnel.

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3.0 IMPLEMENTATION

The TJSO Office/Facility-Specific Qualification Standard is implemented in accordance with TJSO SOPP 4.4, Procedure for the Technical Competency Program, and is in line with the DOE Office of Science *Technical Qualification Program Manual – A Desktop Reference for Supervisors and Participants*. The core competency statements within this Standard are required for all TJSO TCP participants. This TJSO-tailored Standard includes additional competencies that address selected organizational functional areas and these are only required as applicable. Each of the competency statements are explained by a listing of supporting knowledge and/or skill statements.

The supporting knowledge and/or skill statements are not required, but are listed to describe the intent of the competency; however, they may be used as part of the evaluation of the competency.

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

- Familiarity level is defined as basic knowledge of or exposure to the subject or process adequate to discuss the subject or process with individuals of greater knowledge.
- Working level is defined as the knowledge required to monitor and assess operations/activities, to apply standards of acceptable performance, and to reference appropriate materials and/or expert advice as required to ensure the safety of Departmental activities.
- Expert level is defined as a comprehensive, intensive knowledge of the subject or process sufficient to provide advice in the absence of procedural guidance.
- Demonstrate the ability is defined as the actual performance of a task or activity in accordance with policy, procedures, guidelines, and/or accepted industry or Department practices.

In addition to the qualification standard competencies, the TCP participants are required to maintain their site access training requirements.

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4.0 EVALUATION REQUIREMENTS

Attainment of the competencies is documented by the TCP participant and approved/evaluated by the appropriate team leader, supervisor, or qualifying official. The attainment methods include the following:

- Documented evaluation of equivalencies
- Written examination
- Documented oral evaluation
- Documented observation of performance

5.0 CONTINUING EDUCATION, TRAINING AND PROFICIENCY

It is expected that TCP participants shall demonstrate initiative, seek opportunities to continuously improve their effectiveness and ensure that they are up-to-date on changing office priorities, initiatives, policies, and requirements. Sources for continuing learning activities may include:

- Site access training
- Maintenance of technical and professional certification
- Formal development programs
- Self-study
- Special assignments such as details or rotational assignments to other organizations
- Participation in DOE and TJSO committees, working groups, symposia, seminars, exhibitions, and professional organizations

6.0 DUTIES AND RESPONSIBILITIES

6.1 The following are the typical duties and responsibilities expected of TJSO personnel who are TCP participants:

- 6.1.1 Integrate safety into management and work practices to accomplish mission objectives, while ensuring worker and public health and safety, and the protection of the environment.
- 6.1.2 Comply with Departmental Directives, Federal and State Regulations and other binding agreements.
- 6.1.3 Perform respective job duties to support the safe and secure accomplishment of the Department's mission.

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- 6.1.4 Working with people, implement policies and procedures, perform technical reviews, and provide technical direction and feedback to contractor and federal employees.
- 6.1.5 Integrate monitoring and assessment activities and provide feedback to the contractors.
- 6.1.6 Provide appropriate support to establish and maintain technical competence of the TJSO.
- 6.1.7 Effectively communicate technical safety expectations and issues.
- 6.2 Position-specific duties and responsibilities for personnel are contained in their Position Descriptions and Performance Standards.

7.0 REQUIRED TECHNICAL COMPETENCIES

The core competencies are required for all TJSO TCP participants. Functional area competencies are only required as applicable to the participant's functional position assignments. Each of the competency statements defines the level of expected knowledge and/or skill that an individual must possess to meet the intent of this Standard. Supporting knowledge and/or skill statements further describe the intent of the competency statements but are not considered requirements.

Note: *When regulations or Department of Energy directives are referenced in the Qualification Standard, the most recent revision shall be used except in those instances where the older version is in place in the M&O contract.*

CORE COMPETENCIES:

Core - General

1. The TCP participant shall demonstrate a familiarity level of knowledge of the ORO Integrated Service Center (ISC) mission, organizational structure, functions and responsibilities.

Supporting Knowledge and/or Skills

- a. Discuss the primary mission and purpose of the ORO Integrated Service Center.
- b. Discuss services ISC may provide and how to request services.
- c. Discuss responsibilities and authorities regarding ISC work performed at TJNAF.

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2. The TCP participant shall demonstrate a familiarity level of knowledge of the TJNAF Performance Evaluation and Measurement Plan (PEMP).

Supporting Knowledge and/or Skills

- a. Describe the DOE-SC Laboratory Performance Appraisal Process, as in the SC instruction by the same name. Explain the PEMP process.
- b. List the PEMP responsibilities of technical staff, the TJSO site manager, and DOE-SC.
- c. Describe the annual PEMP schedule and milestones.

3. The TCP participant shall demonstrate a working level of knowledge of the functions, responsibilities, and authorities of the TJSO organization.

Supporting Knowledge and/or Skills

- a. Review the organization's Functions, Responsibilities, and Authorities Manual (FRAM).
- b. Describe how assigned duties and responsibilities relate to TJSO's FRAM, the TJSO Annual Performance Plan, and Individual Performance Plans.
- c. List areas of functional ownership (i.e., who covers what) for TJSO personnel that perform oversight of TJNAF.

4. The TCP participant shall demonstrate a familiarity level of knowledge of the mission, organization, and functions of the organizations at DOE-HQ that oversee TJSO operations.

Supporting Knowledge and/or Skills

- a. Describe the mission of the Office of Science, the OneSC Project, and the Integrated Support Center, and their relationship to TJSO. Discuss the organizational structure of SC as it pertains to TJSO and TJNAF.
- b. Access SCMS. Describe how SCMS works and its purpose.
- c. Discuss the role of DOE's Office of Health, Safety, and Security as it pertains to policy and oversight of field offices and contractors.
- d. Discuss the role of the DOE Inspector General in regards to TJNAF and TJSO.

5. The TCP participant shall demonstrate a familiarity level of knowledge of the TJSO Employee Concerns Programs.

Supporting Knowledge and/or Skills

- a. Discuss the requirements of TJSO SOPP 2.1, Employee Concerns Program.

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- b. Describe the types of concerns, how they are raised, and the resolution process at the appropriate office or laboratory.
- c. Explain the employee concern closure process.

6. The TCP participant shall complete the following site access training courses:

- a. Security Awareness.
- b. EH&S Orientation.
- c. Radiological Worker I.
- d. Oxygen Deficiency Hazard.

Core - Safety

7. The TCP participant shall demonstrate a familiarity level of knowledge of their responsibilities regarding safety, both individually and organizationally.

Supporting Knowledge and/or Skills

- a. Describe the TJSO policies, procedures, and practices that address safety.
- b. List the safety responsibilities of each TJSO employee.
- c. Explain how the TJSO stop (or suspend) work authority is granted and exercised (e.g., DEAR ISM clause, 970.5223-1, “Stop Work,” and the FAR 52.242-15, “Stop Work Order”).
- d. Explain the TJNAF stop work process. Discuss the TJSO SOPP 3.1, Shutdown and Restart Authority.

8. The TCP participant shall demonstrate a working level of knowledge of the TJSO ES&H Team’s mission and functions.

Supporting Knowledge and/or Skills

- a. Describe the ES&H Team’s major contractor oversight activities.
- b. List the ES&H responsibilities that are common for every TJSO employee.
- c. Describe the industrial, radiological, chemical, and laser hazards at TJNAF.

9. The TCP participant shall demonstrate a working level of knowledge of the process for dealing with emergencies at TJNAF.

Supporting Knowledge and/or Skills

- a. Discuss the participant’s organization emergency preparedness process/plan.
- b. Review the TJSO Emergency Plan and discuss the primary responsibilities common to every TJNAF employee.

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- c. Describe the evacuation and shelter-in-place procedures/protocols for TJNAF.
- d. Discuss how Jefferson Laboratory implements its emergency plan.

10. The TCP participant shall demonstrate a familiarity level of knowledge of the purpose, scope, organizational lead for, and enforcement process as it pertains to the Price-Anderson Amendments Act (PAAA), particularly 10 CFR 835 and 10CFR 851.

Supporting Knowledge and/or Skills

- a. Review the applicable PAAA rules and DOE Office of Enforcement actions.
- b. Demonstrate an understanding of how potential violations of the rules would be addressed by DOE TJSO and TJNAF. Discuss the Noncompliance Tracking System (NTS) reporting process.
- c. Discuss what an enforcement action entails.

11. The TCP participant shall demonstrate a familiarity level of knowledge of the TJSO ISMS Program Description.

Supporting Knowledge and/or Skills

- a. Review the TJSO ISMS Program Description.
- b. Describe how TJSO oversees implementation of ISMS related to assigned agency/SC responsibilities.
- c. Describe how the effectiveness of TJNAF's implementation of ISMS is evaluated.

12. The TCP participant shall demonstrate a familiarity level of knowledge of the occurrence reporting and the lessons learned programs.

Supporting Knowledge and/or Skills

- a. List and review the occurrence reporting directives and databases applicable to TJSO.
- b. Describe the DOE Corporate Operating Experience Program and the lessons learned processes used at TJNAF.
- c. Review a recent occurrence report and a TJNAF operating experience report.
- d. Describe the TJSO-TJNAF occurrence reporting process, as appropriate.

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Core - Business and Finance

13. The TCP participant shall demonstrate a familiarity level of knowledge of performance-based contract management.

Supporting Knowledge and/or Skills

- a. Describe the primary duties and limitations of the contracting officer's representative.
- b. Discuss the DEAR clause that addresses the contractor's implementation of ES&H.
- c. List the methods used to evaluate the laboratory or contractor performance on the contract.
- d. Review the TJSO-TJNAF Work Smart Standards process
- e. Review the process to place a new or revised DOE Directive into the TJNAF contract.

14. The TCP participant shall demonstrate a familiarity level of knowledge of assessment of contractor performance.

Supporting Knowledge and/or Skills

- a. Review the laboratory or contractor statement of work (SOW).
- b. Describe the process the laboratory or contractor uses to conduct its self-assessment of its contract performance accounting for scale, complexity, and uniqueness of work performed.
- c. Discuss the circumstances that would lead to a "for cause" review of a laboratory's, contractor or agency's contract performance.
- d. Discuss the DOE oversight process per DOE O 226.1A, Implementation of Department of Energy Oversight Policy.

15. The TCP participant shall demonstrate a familiarity level of knowledge of the DOE financial management process and procedures necessary to integrate program resources and apply those resources to meet quality, cost, safety and schedule commitments.

Supporting Knowledge and/or Skills

- a. Review the TJSO financial management responsibilities.
- b. Describe how DOE funding is allocated to TJSO and the Laboratory.
- c. Describe the processes TJSO uses to oversee the laboratory or contractor's financial management practices.

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Core - Regulatory

- 16. The TCP participant shall demonstrate a familiarity level of knowledge of key environmental laws, requirements, and commitments, and how they are enforced for SC sites.**

Supporting Knowledge and/or Skills

- a. Review DOE O 450.1, *Environmental Protection Program*, and its application at TJNAF.
- b. Review summaries of 40 CFR, Protection of Environment; Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); Resource Conservation and Recovery Act (RCRA); Clean Air Act (CAA); Clean Water Act (CWA); National Environmental Policy Act (NEPA); National Pollutant Discharge Elimination Standard (NPDES) and related rules and their application at TJNAF.
- c. Describe the general enforcement process.

- 17. The TCP participant shall demonstrate a familiarity level of knowledge of the environmental regulatory bodies for TJSO and their respective areas of authority.**

Supporting Knowledge and/or Skills

- a. Describe the Federal, State, and local environmental regulatory organizations that enforce environmental regulations placed upon TJNAF.
- b. List TJSO's and TJNAF's significant reporting requirements pertaining to environmental regulation as appropriate.
- c. Review a TJNAF environmental monitoring report for compliance adequacy.

- 18. The TCP participant shall demonstrate a familiarity level of knowledge of the function and purpose of the relevant accelerator/facility safety review system.**

Supporting Knowledge and/or Skills

- a. Review accelerator safety order DOE O 420.2B, *Safety of Accelerator Facilities*.
- b. Review the SCMS documents applicable to the TCP participant's respective functional areas (i.e., emergency management, fire protection, etc).
- c. Describe the scope of the Site Office/laboratory accelerator/facility safety review system.
- d. Discuss the TJSO process to assess and document the condition of the facilities, equipment, and engineered safety systems, as appropriate.

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Core - Security

19. The TCP participant shall demonstrate a familiarity level knowledge of safeguards and security requirements for cyber-security, sensitive and classified matter and/or government property assigned to them; and shall complete the DOE and TJNAF Security Awareness Training.

Supporting Knowledge and/or Skills

- a. Review DOE P 470.1, Integrated Safeguards and Security Management (ISSM) Policy, and discuss its application at TJNAF and TJSO.

SPECIFIC TJSO FUNCTIONAL AREAS:

Senior Management

(Applicable to TJSO Managers)

20. The TCP participant shall demonstrate a working level knowledge of TJSO safety requirements, programs, and responsibilities for the oversight of its contractors or laboratory personnel.

Supporting Knowledge and/or Skills

- a. Demonstrate the ability to communicate DOE or TJSO requirements and expectations for safety related to oversight responsibility.
- b. Demonstrate a “Sense of the Laboratory” for TJSO programs, operations, conditions, and associated laboratory performance and issues.

21. The TCP participant shall demonstrate a working level knowledge of the emergency management systems and programs at TJSO.

Supporting Knowledge and/or Skills

- a. Discuss the scope, purpose, and objectives of the TJNAF emergency response drills and exercises.
- b. Discuss how and when TJSO and TJNAF interface with the DOE-HQ Operations Center.
- c. Complete the required training and drill participation to maintain active status on the emergency management response team roster as appropriate.

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- 22. The TCP participant shall demonstrate a familiarity level knowledge of the basic operations and processes at the TJNAF facilities, particularly at those facilities that contain hazardous materials and processes.**

Supporting Knowledge and/or Skills

- a. Describe the mission and basic operations at the TJNAF facilities or other operations that require significant oversight.
- b. Review the safety records for the above facilities and operations.
- c. Describe the primary hazard controls for the above TJNAF facilities and operations.

- 23. The TCP participant shall demonstrate a familiarity level knowledge of the TJNAF environmental and waste management policies, processes, and practices.**

Supporting Knowledge and/or Skills

- a. Discuss the major waste management practices at TJNAF from generation to disposal. Discuss technical assistance provided to participating organizations.
- b. List the significant pollution prevention and waste reduction practices applied by the TJNAF as appropriate.
- c. Discuss TJNAF Radioactive Waste Management practices, and technical assistance provided.
- d. Discuss the new or alternative technologies employed or planned for, to expedite potential or actual environmental or waste management processes for environmental clean-up activities at TJNAF.

Project and Facilities Management

(Applicable to Federal Project Directors)

- 24. The TCP participant shall demonstrate a familiarity level knowledge of DOE O 430.1B, *Real Property Asset Management*, and its application to the oversight of TJNAF Facilities and Infrastructure Management or for support provided to TJSO by the ORO Integrated Support Center.**

Supporting Knowledge and/or Skills

- a. Review the description and requirements of the Facilities Information Management System (FIMS) and its application at TJNAF.
- b. Discuss DOE O 430.1B as it pertains to TJNAF and TJSO.
- c. Discuss how the concepts of Replacement Plant Value (RPV) and Maintenance Investment Index (MII) are applied at TJNAF and monitored by SC.

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- 25. The TCP participant shall demonstrate the ability to prepare project authorization documents to facilitate DOE Office of Science (SC) approvals for project directives, critical decisions, and baseline change proposals.**

Supporting Knowledge and/or Skills

- a. Review and discuss the requirements of DOE O 413.3A, *Program and Project Management for the Acquisition of Capital Assets*, as they pertain to TJSO assigned responsibilities including specific project management systems.
- b. Review and discuss the office procedures or DOE-SC SCMS documents that address acquisition of capital assets.
- c. Describe how the Annual Financial Plan (AFP), Project Execution Plan (PEP), and Integrated Project Team (IPT) Charter are applied to SC Projects including roles and responsibilities of TJSO.

- 26. The TCP participant shall demonstrate the ability to prepare the annual Facilities Appraisal of project management functions, and participate in the assessment of other organizations as required.**

Supporting Knowledge and/or Skills

- a. Review and discuss the sections of the laboratory or contractor contract that address contract management, including performance measures and criteria.
- b. Evaluate the laboratory or contractor's execution of its budget to meet negotiated milestones.

- 27. The TCP participant shall demonstrate the ability to monitor and evaluate laboratory or contractor performance through periodic oversight management reviews, on-site construction progress reviews, internal controls reviews, quality assurance audits, and technical program reviews to ensure conformance with program, project, and contract requirements.**

Supporting Knowledge and/or Skills

- a. Describe the laboratory or contractor's internal operational controls.
- b. Review laboratory or contractor's risk assessment program and its project risk directory for adequacy and compliance.
- c. Review and/or prepare a Project Safety Oversight Plan that addresses the interface with the TJSO ES&H subject matter experts.

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Environment, Safety, and Health (ES&H)

(Applicable to safety engineers and TCP participants with federal safety oversight responsibilities)

28. The TCP participant shall demonstrate a working level knowledge of DOE O 420.2B, *Safety of Accelerator Facilities*, and its application at TJNAF.

Supporting Knowledge and/or Skills

- a. Describe the Final Safety Assessment Document (FSAD) – Accelerator Safety Envelope (ASE) review process applied by TJSO.
- b. Explain the hazards and accident scenarios, as discussed in the FSAD-ASE.
- c. Discuss the credited controls and defense in depth controls (including administrative safety management programs/controls), as discussed in the FSAD-ASE.
- d. Describe the actions that need to be taken if the ASE is violated.
- e. Define an unreviewed safety issue (USI) and discuss the TJNAF USI procedure.
- f. Discuss the facility categorization of TJNAF (i.e., why is TJNAF classified as a low hazard accelerator).

29. The TCP participant shall demonstrate a working level knowledge of the process that the TJSO or Contractor uses to report incidents to HQ and/or TJSO involving laboratory worker injury, illness, and property damage.

Supporting Knowledge and/or Skills

- a. Assess and review laboratory/contractor reports from the Computerized Accident Incident Reporting and Recordkeeping System (CAIRS) database and the Occurrence Reporting and Processing System (ORPS).
- b. Review and discuss the procedure for TJNAF notifications to TJSO. For a given laboratory/contractor worker injury incident, check that this procedure was followed.
- c. Review and discuss the completion requirements for OSHA Form 300, Log for Recording Work-Related Injuries and Illnesses.
- d. Describe the event criteria that may require a type A and B Accident Investigation, as defined in DOE O 225.1A, Accident Investigations. Describe immediate actions to be taken in response to an accident that may potentially require a type A or B Accident Investigation.

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- 30. The TCP participant shall demonstrate the ability to evaluate the effectiveness of facility/operations safety systems to ensure that the laboratory or contractor is effectively implementing DOE Safety Policies and Standards. This requires completion of the unescorted access training for Halls A, B, and C.**

Supporting Knowledge and/or Skills

- a. Review and describe the safety analyses, the operation and maintenance requirements and technical specifications for a given safety system.
- b. Review the documentation for a given safety system, check the system design and installation requirements, and compare with as-built documents.
- c. Describe laboratory/contractor process for determining the root cause for safety system equipment/component failures.
- d. Participate in the review and evaluation of the adequacy of laboratory/contractor's safety documentation.
- e. Participate as a member on a formal DOE safety or environmental assessment team.

- 31. The TCP participant shall demonstrate the ability to evaluate laboratory or contractor's oversight assessment activities, investigations, trending activities and root cause evaluations, and adequacy and implementation of corrective actions.**

Supporting Knowledge and/or Skills

- a. Review DOE O 226.1A, Implementation of Department of Energy Oversight Policy.
- b. Review the laboratory's contractor assurance system (CAS).
- c. Participate in a review of the laboratory/contractor CAS implementation.
- d. Review SOPP 4.5, TJSO Operational Awareness Program.

Security

(Applicable to TCP participants with federal oversight responsibilities)

- 32. The TCP participant shall demonstrate a working level knowledge of safeguards and security requirements for sensitive matter and government property.**

Supporting Knowledge and/or Skills

- a. Participate in a TJSO security review of the contractor's security practices.

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Facility Maintenance

(Applicable to TCP participants with federal oversight responsibilities)

33. The TCP participant shall demonstrate a familiarity level knowledge of the different types of maintenance, as applied at TJNAF.

Supporting Knowledge and/or Skills

- a. Discuss and compare the following:
 - Corrective maintenance
 - Preventive maintenance
 - Predictive maintenance
- b. Discuss the role of the types of maintenance in an effective and efficient maintenance program.
- c. Discuss the importance of maintaining a proper balance of preventive, predictive, and corrective maintenance.
- d. Discuss the elements needed to successfully implement a maintenance program that balances the three types of maintenance.
- e. Describe the relationship in scheduling between preventive and predictive maintenance.
- f. Discuss the relationship between the results of predictive maintenance and preventive maintenance.
- g. Discuss the considerations used when determining maintenance actions and their frequencies.
- a. Define the term "life limiting component" and its impact on facility operation.

34. The TCP participant shall demonstrate a familiarity level knowledge of the Department of Energy Technical Standard DOE-STD-1073-93, Configuration Management, as applied at TJNAF.

Supporting Knowledge and/or Skills

- a. Describe the purpose and objectives of the Operational Configuration Management Program.
- b. Discuss what constitutes acceptable contractor compliance consistent with the requirements of DOE-STD-1073-93, Configuration Management, for the following elements of the contractor's Configuration Management Plan:
 - Program planning
 - Equipment scope criteria
 - Concepts and terminology
 - Interfaces
 - Databases
 - Procedures

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- c. Discuss the following elements of the Configuration Management Program:
 - Design requirements
 - Document control
 - Change control
 - Assessments
 - Design reconstitution adjunct
 - Material condition and aging adjunct
- d. Discuss the purpose, concepts, and general process for applying the graded approach to operational configuration management.