Department of Energy
Washington, DC 20585

October 29, 1998

The Honorable John T. Conway
Chairman
Defense Nuclear Facilities Safety Board
625 Indiana Avenue N.W., Suite 700
Washington, D.C. 20004

Dear Mr. Chairman:

In the Revised Implementation Plan (IP) for Board Recommendation 93-3, "Improving DOE Technical Capability in Defense Nuclear Facilities Programs", the Department commits to conducting Phase I Technical Qualification Program Assessments and providing reports of the assessments to the Chair of the Federal Technical Capability Panel.

As a requirement pursuant to Commitment 5.4.2 of the IP, the Phase I Assessments were conducted by teams of technical line personnel and training personnel, using the *Technical Qualification Program Assessment Guidance and Criteria.* A copy of that guidance along with a representative assessment report, the Savannah River Operations Office Technical Qualification Program Phase I Assessment Report, are enclosed. Board Staff observed the assessment at Savannah River and were helpful in refining the process.

The assessments have been completed at all sites with all reports submitted to the Chair of the Panel. The Department has completed the actions identified under this commitment and proposes closure of this commitment.

If you have any questions please call me, or your staff may contact Mr. Dave Roth at (202) 426-1506.

Sincerely,

Dave Roth for

Thomas W. Evans
Executive Secretary to the
Federal Technical Capability Panel

cc: Steve Richardson, Panel Chair (without enclosures)
Panel Members (without enclosures)
Mark B. Whitaker, Jr., S-3.1

98/3422

Savannah River Operations Office
Technical Qualification Program
Phase I Assessment Report

Approved and Submitted by:

W. Brumley, Phase I Assessment Team Leader

9/30/98
Date

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Executive Summary

The Department of Energy's (DOE) Technical Qualification Program was established in response to a Defense Nuclear Facility Safety Board observation that the level of federal scientific and technical expertise needed to effectively accomplish DOE's safety responsibilities at defense nuclear facilities was declining (recommendation 93-3). The Phase I Assessment was conducted to determine whether the Savannah River Operations Office (SR) is meeting the Technical Qualification Program objectives identified in Section 5.4 of DOE's revised 93-3 Implementation Plan. The assessment was conducted in accordance with the DOE Federal Technical Capability Program's "Technical Qualification Program Assessment Guidance and Criteria," dated July 1998. SR's program was evaluated against the seven objectives and associated criteria identified in that document as well as an additional SR-specific objective added by the team.

Overall, the team concluded that SR's Technical Qualification Program has been rigorously applied in a credible and conscientious manner. The program provides SR's technical staff with an improved ability to effectively oversee contractor activities. Clearly, participants perceived the program to have most value in organizations where managers applied the program most rigorously and were very involved in the evaluation process.

The assessment team concluded that SR's program meets or exceeds most of the expectations set forth in Section 5.4 of DOE's revised 93-3 Implementation Plan. SR's program clearly embodies Technical Qualification Program principles. Specific roles and responsibilities are defined in SR's implementing procedure. SR's program does not require a rigorous job and task analysis be performed for each identified Technical Qualification Program position, although supervisors are clearly aware of job requirements. Related knowledge, skill, and ability elements are defined in the General Technical Base, Functional Area, and Facility-Specific Qualification Standards. Although a formal independent assessment system is not in place to measure technical competency, there is an effective system in place to measure completion of qualification requirements, and competency is evaluated by management and designated qualifying officials. Feedback mechanisms are included in the program. SR managers have implemented the program to meet SR mission needs. Appropriate positions are included in the program, although many participants perceive a disconnect between Functional Areas and their actual jobs. The technical competency of personnel has been maintained or upgraded. The level of technical competency of personnel who have completed the program is considered adequate and appropriate (and will be further evaluated in Phase II assessments; SR must ensure that the graded approach and flexibility afforded by the program is appropriately applied in all cases). The program identifies job-specific requirements that focus on rules, regulations, codes, standards, and guides necessary to carry out the mission needs. SR-specific programs are consistent with roles and responsibilities. The adequacy and relevancy of participant experience has been verified for staff positions (although the team found that reliance on equivalencies generally increased as the level of management increased, and some cases were noted where many competencies were signed off in one day). SR's procedure appropriately identifies a need for continuous training, but does not establish sufficient guidelines or criteria to ensure that over time, qualified participant competencies will be maintained or enhanced, and management had not provided specific guidance to staff in this regard.

The report includes recommendations for improvement directed to the SR Executive Technical Management Board.

Introduction.

The Department of Energy's (DOE) Technical Qualification Program (TQP) was established in response to a Defense Nuclear Facility Safety Board (DNFSB) observation that the level of federal scientific and technical expertise needed to effectively accomplish DOE's safety responsibilities at defense nuclear facilities was declining. DNFSB recommendation 93-3 was issued on June 1, 1993. DOE's initial 93-3 Implementation Plan was issued on November 3, 1993.

Four years into implementation, the DNFSB asked DOE to revise the Implementation Plan to ensure commitments would be met, would have the desired effect, and addressed changes occurring over the past four years. DOE issued its revised 93-3 Implementation plan on March 31, 1998. The revised Implementation Plan establishes specific TQP objectives to be met by each operations and program office. The first step in ensuring these objectives are met is to formally evaluate current programs against these objectives ("Phase I"). Phase I assessments will serve as the basis for revising Technical Qualification Programs, as appropriate. Phase II assessments will be conducted periodically after approved TQP revisions are in place to determine whether the program is functioning as intended.

The purpose of the Phase I Assessment is to determine whether the Savannah River Operations Office (SR) is meeting the TQP objectives identified in Section 5.4 of DOE's revised 93-3 Implementation Plan. This assessment is a deliverable under commitment 5.4.2 of the revised Plan.

Background.

As of September 1998, 215 employees were participating in SR's TQP, in 21 functional areas (Attachment 1). Over half (125) were qualified; 58 were scheduled to complete the program by December 1998; 14 were scheduled to complete the program by May 1999, and 18 were due after May 1999. Approximately half were participating as Facility Representatives, Nuclear System Safety specialists, or Senior Technical Safety Managers.

Scope and Methodology.

The assessment included each of the nine SR organizations with TQP participants[1]. SR's 40 Facility Representatives were excluded from the assessment because SR's Facility Representative Program was established prior to implementation of the remaining TQP elements and operated under a separate SR procedure.

The assessment was conducted in accordance with the DOE Federal Technical Capability Program's "Technical Qualification Program Assessment Guidance and Criteria," dated July 1998. SR's TQP was evaluated against the seven TQP objectives and associated criteria identified in that document and an additional SR-specific objective added by the team (Attachment 2). The team reviewed and analyzed applicable criteria, training and qualification records, and other supporting documentation (Attachment 3). The team conducted interviews with a total of 85 managers, non-management participants, and administrative support personnel (Attachment 3). The majority of the fieldwork was conducted between September 21-23, 1998.

[1] Office of the Manager, Assistant Manager for Business & Logistics, Assistant Manager for Environmental Quality, Assistant Manager for Health, Safety & Technical Support, Assistant Manager for High Level Waste, Assistant Manager for Material & Facility Stabilization, Assistant Manager for National Security, Office of Safeguards & Security, and Assistant Manager for Science, Technology & Business Development.

The SR Phase I Assessment team was led by William Brumley, Deputy Assistant Manager for National Security. The team included William Brasel, Scott DeClue, and Lauren Lovick from DOE-SR; David Roth from DOE-Headquarters (Assistant Office Director for Training and Professional Development, HR-31); and Johnnie Guelker from the DOE Amarillo Area Office (Lead, Engineering Team).

RESULTS

The following section addresses the eight TQP objectives and criteria detailed in Attachment 2.

TQP-1: Demonstration of Competence. "The TQP clearly identifies and documents the process used to demonstrate employee technical competence."

SR has an established implementing procedure in place, SRIP 361.5, "Federal Technical Workforce Training and Qualification," (rev. 4/27/97). As discussed below in TQP-3, this procedure defines the Technical Qualification Program and provides detailed guidance on identification of participants and other aspects of the qualification process. The procedure is available on-line to SR management and staff as part of the SR directives home page.

SR personnel providing management direction or oversight that could impact the safe operation of defense nuclear facility have been identified as participants in the TQP. The team found that SR managers tended to make conservative decisions by including, rather than excluding, employees in the program where definitions were unclear. Senior management commitment to the program, and the overall rigor with which the process has been applied, with significant management involvement in the evaluation/check-out process in most organizations, is a strength contributing to the effectiveness of SR's program.

In accordance with SR's procedure, formal records have been established for TQP participants. While qualification is in progress, the original Technical Qualification Record is maintained by the participant. Once qualification is complete, centralized TQP records are maintained by the Training & Development Management Group (TDMG) with participants' individual training files. The SR procedure requires that participants and supervisors document on individual the TQR how competencies will be met (e.g., self-study, OJT, formal training, or equivalency). The qualifying official verifies that the competency was achieved. A review of TQRs disclosed that most, but not all, records indicated how competencies will be or were met. SR's automated Training Requirements Matrix (i.e., employee individual development plans) also documents the formal training courses needed to satisfy qualification requirements, including target, scheduled, and completed dates. The SR procedure requires line organizations to provide the TDMG with updated copies of TQRs every 6 months; these are not always provided, and some managers considered this administratively burdensome without adding value. TDMG's centralized listing of participants was also not completely accurate because the group was not always notified of personnel changes between divisions or changes in functional areas in a timely manner.

In November 1998, SR will initiate a new Performance Management System. The revised system is designed to enhance organizational focus on employee qualification and development. The performance appraisal process incorporates identification of developmental areas and competencies, and identification of specific mechanisms to achieve desired goals. Although the new Performance and Development Plan does not explicitly reference the formal Technical Qualification Program, it does specifically require supervisors to evaluate whether employees "achieve and maintain applicable position qualification requirements," and supervisors are

evaluated on whether they "determine and drive completion of employee qualification requirements" and "foster employee professional and technical development." As a result of other recent revisions to the human resource systems, the TQP is better integrated with position descriptions and vacancy announcements. SR position descriptions have been revised to contain the following generic statement: "Maintain and improve individual technical and professional competencies required to satisfactorily perform the duties of the position... completion of the Technical Qualification Program... may be required or encouraged to enhance competence." In addition, position descriptions contain a statement detailing specific requirements that must be met if the position requires participation in the TQP. And, as cited during interviews with several Assistant Managers, recent revisions to SR's awards process now allow managers to reward completion of the TQP process with cash or time-off awards.

TQP-2: Competency Levels. "Competency requirements are clearly defined and consistent with applicable industry standards for similar occupations."

SR used Department-wide standards for General Technical Base and Functional Area competency requirements. These standards include clearly defined knowledge, skills, and abilities. SR organizations also developed applicable Facility-Specific competency requirements. Division Directors and Assistant Managers utilized subject matter experts in developing Facility-Specific standards. Management and non-management participants consistently indicated they were generally comfortable with the General Technical Base, Functional Area, and Facility-Specific standards, except for the Senior Technical Safety Manager Functional Area standard. Participants generally felt most value was attained from qualifying to the Facility-Specific standards.

As discussed below in TQP-5, attainment of related professional certifications has not been effectively integrated into the TQP; the team notes this is as a Department-wide issue. At present there is no clear incentive for obtaining external certification.

TQP-3: Plans and Procedures. "SR has implemented plans and/or procedures to govern administration of the Technical Qualification Program."

SR has an established implementing procedure in place, SRIP 361.5, "Federal Technical Workforce Training and Qualification," (revision effective 4/27/97). This procedure defines the Technical Qualification Program. The procedure is readily available on-line to all SR employees as part of the SR directives home page. The procedure identifies the process for selecting participants, including a step-by-step flowchart. The procedure provides clear and detailed guidance for implementing the program in accordance with the DOE 93-3 Implementation Plan, applicable DOE Orders and other guidance, and interfacing SR procedures and guidance (such as training program and course administration, and guide to good practice for the development of test items). In addition to detailing the processes, a separate section of the procedure clarifies roles and responsibilities for the SR Manager, second level supervisors, immediate supervisors, qualification candidates, qualified employees, qualifying officials, and human resources and training administrative support personnel.

The assessment team also found that a new manual section merging the Federal TQP procedure and the SR Facility Representative Training and Qualification program procedure had been developed (SRM 300.1.1AA Section 6.1), as part of a human resources procedure manual. Although signed by the SR Manager on May 20, 1998, the manual section had not been formally

established as part of SR's directive system and the team found there was considerable confusion regarding the role of the manual versus the existing site implementing procedures.

The one area where roles and responsibilities were not clearly defined was overall site-wide ownership of the program. The commitment of SR's senior management—the Manager, Deputy Manager, and all Assistant Managers—was identified as a significant attribute of SR's program. Assistant Managers felt clear ownership of the program for their organizations. At present, there was no clear line ownership from a site-wide perspective (e.g., to ensure that substantive programmatic issues were addressed and cross-organizational efficiencies were realized). However, in April 1998, SR established an Executive Technical Management Board consisting of all senior line managers and ex-officio participation from senior managers providing critical administrative support to the line. One of the Board's four focus areas is "improvement and maintenance of the Technical Capability of the Federal Workforce." Accordingly, the recommendations in this report are addressed to this Board to foster corporate line ownership of SR's TQP.

There was some disconnect between line organizations and the training support organization in communicating the value of administrative requirements and ensuring that the line received value-added support. It was recognized that the training office has been under significant staffing pressure; however, systems and requirements have not been evaluated to determine whether new ways of doing business may be more effective to meet line needs, given staffing shortages and increasing pressure on training and travel budgets (e.g., changing SR's training culture to maximize use of on-site expertise and experience).

TQP-4: Qualification Tailored to Work Activities. "The program includes identification of unique DOE and position-specific work activities, and the knowledge and skills necessary to accomplish that work."

SR's process was viewed as excellent for ensuring that new hires are effectively developed, with less consistently clear effectiveness for staff who were hired as experts and/or have developed competency at SR. Many participants who had been hired as experts or who had developed competency through their experience at SR did not believe the process itself contributed to a significant increase in technical competence. However, the team concluded that overall, the TQP provides SR's technical staff with an improved ability to effectively oversee contractor activities.

SR's current program is flexible enough to allow line managers to tailor the program to meet mission needs. Managers used this flexibility (e.g., by adding competencies to the Facility-Specific qualification standards to fill gaps identified in the General Technical Base and Functional Area standards). The team followed-up on Functional Areas that appeared to be inconsistent with organizational assignments, and found defensible rationale for these designations in all cases (e.g., a High Level Waste employee in the Environmental Restoration Functional Area contributed this expertise to the tank closure team). A number of participants expressed concern that project management was not available as a stand-alone functional area. This was perceived to result in a disconnect between the assigned functional area/associated competencies and the employees actual job. In many cases the available functional areas were not perceived to clearly fit with actual jobs, and a "best fit" approach to the employee's job and/or background was used. DOE's revised Implementation Plan provides managers with additional flexibility by eliminating the requirement for use of specific Functional Areas, although this is not reflected in SR's procedure.

The team also noted that other technical qualifications were in use at SR but were not part of the 93-3 Technical Qualification Program (e.g., Albuquerque Quality Assurance certification, National Environmental Policy Act certification).

TQP-5: Credit for Existing Technical Qualification Programs. "The program is structured to allow credit, where appropriate, for other technical qualification program accomplishments."

SR's established procedure allows credit (equivalencies) to be granted for previous training, education, experience, and completion of other qualification/certification programs, where appropriate. The procedure defines appropriate documentation acceptable for training, certification, and work-related equivalencies, and requires two levels of supervisory approval.

Although equivalencies are allowed by procedure, some managers chose to ensure staff competency by requiring self-study, formal training, or OJT for all competencies, validated by oral or written checkout. In other cases, over-reliance on equivalencies, some with poor documentation, may call into question the validity of the qualification process. In addition, the team found that Senior Technical Safety Managers' liberal use of equivalencies was not consistent with the generally limited use of equivalencies by their staff. The team believes this was largely due to the Senior Technical Safety Manager qualification standard's focus on general management rather than technical competencies.

As noted under TQP-2, attainment of related professional certifications has not been effectively integrated into the TQP. However, SR management strongly supports attainment of advanced degrees and professional certifications. Two on-site graduate programs have been available for several years (Master of Environmental Sciences and Master of Environmental and Earth Resource Management), and several courses have been brought in to meet employee professional credential needs (Registered Environmental Manager; Certified Hazardous Material Manager; Certified Safety Professional; and Certified Energy Manager).

TQP-6: Transportability. "Competency requirements identified as having DOE-wide applicability are transferable."

SR's TQP is based on the existing Department-wide model, uses Department-wide General Technical Base and Functional Area standards, and was developed in accordance with Headquarters guidance. Based on the evident rigor with which this program has been implemented at SR, the team concluded that qualified SR staff should easily be transportable to other sites, to the extent that the Technical Qualification Programs at these sites are also based on the Department-wide model. If SR chooses to change the program based on newly flexible guidance, transportability may become an issue in the future.

TQP-7: Measurable. "The program contains sufficient rigor to demonstrate compliance with TQP principles."

SR's program clearly contains sufficient rigor to demonstrate compliance with TQP principles. Overall, the team found that the program was applied in a credible and conscientious manner. Prior to initiating the Phase I Assessment, the team concluded that a formal evaluation of the "adequacy and appropriateness of the technical competency of personnel who have completed the program" would be deferred until the Phase II Assessment. However, managers consistently indicated they were confident of the competency of participants who had completed the program.

A potential vulnerability exists in ensuring the graded approach and flexibility afforded by the program is appropriately applied across all SR organizations by supervisors and other qualifying

officials. In reviewing records, for example, the team found some cases where many competencies were signed off in one day, cases where there appeared to be excessive reliance on equivalencies, and cases where final approval was obtained before all competencies had been completed. While in some cases appropriate justifications for these situations can be made, they call into question the rigor of the evaluation process. On the positive side, exemptions were rarely used.

The team found a strong positive relationship between the rigor applied to the program in an organization and staff perception of the program's value. Employees in organizations where the program was implemented rigorously consistently indicated the program was valuable. They identified benefits beyond enhanced competence—such as improved supervisory communications, improved communication between division technical staff, and increased interaction with a broader network of technically competent individuals (particularly, qualifying officials and other employees in the same functional area).

Numerous mechanisms were available to provide continuous improvement feedback on SR's TQP. The Training & Development Management Group (TDMG) holds annual Town Hall Meetings to solicit feedback on the TQP and other training services. Employees must complete a Training Evaluation Form (submitted to the TDMG) prior to receiving credit for formal training classes. Some organizations solicited feedback from their employees on the TQP and are in the process of evaluating this feedback to improve their programs. Further, SR utilized lessons-learned from development and implementation of its Facility Representative program in establishing the full TQP, and the Facility Representative program has been previously evaluated. However, this Phase I Assessment is the first systematic assessment of the overall TQP.

SR's focus has appropriately been on identifying and qualifying technical staff. At this time, with a majority of participants qualified, SR management attention is beginning to focus on the need for continuing training requirements. The Department-wide revised 93-3 Implementation Plan does not provide specific guidance for continuing training. SR's procedure meets the intent of the Implementation Plan by identifying the need for continuing training, but does not provide specific guidance on type or amount of training necessary to ensure competencies are maintained or enhanced over time.

SRTQP-8: Planning (Critical Technical Capability Preservation). "A system is in place to ensure the availability of competent personnel to fill Critical Technical Capability positions over the next five years."

SR does not yet have a formal system in place to ensure the availability of competent personnel to fill Critical Technical Capability positions over the next 5 years, but this is a well-recognized need and significant management attention is focused in this area.

During the assessment, managers indicated the recently developed Critical Technical Capability list and TQP were not sufficiently aligned. Managers recognized that SR's TQP was well-established, with functional areas defined and many participants qualified, prior to initiation of the Critical Technical Capability effort. However, managers generally felt SR's Critical Technical Capability list would benefit from reevaluation and better definition, particularly if it will stand as SR's goal for ensuring preservation of needed technical capabilities. SR has established a separate competitive category to preserve Facility Representative technical capability in the event of a Reduction in Force. Management determined that this approach

would not be appropriate for SR's other Critical Technical Capability positions and will utilize other methods, including the TQP and administrative flexibilities, to ensure these capabilities are preserved and appropriately considered in strategic and workforce planning.

The TQP can be used to assist line managers, individually and for the operations office as a whole, in future planning. Metrics are available or can be developed from program data (e.g., estimated employee retention rate by functional area over the next 5 years) to aid in succession planning and support development of a staffing management plan.

Summary of Results and Recommendations

Overall, the team concluded that SR's Technical Qualification Program has been rigorously applied in a credible and conscientious manner. The program provides SR's technical staff with an improved ability to challenge contractor activities. Clearly, participants perceived the program to have most value in organizations whose managers applied the program most rigorously and were very involved in the evaluation process.

Over the past several years, expectations of—and demands on—SR's federal staff have increased significantly. SR's TQP is one key element representative of these increasing expectations and demands. Other factors include a significant reduction in support service contracting staffing and significant pressure to downsize federal staffing with no relief from, and probable increases in, existing mission requirements. As evidenced by the SR TQP, managers and staff have risen to meet the challenge of these increased expectations.

In considering the following recommendations, the team cautions that appropriate SR technical staff are either qualified or currently in process of qualifying in the TQP. Given limited opportunities for new hires, any changes to the program should be cost-effective and focused on efficiently and effectively developing and maintaining technical competency.

Recommendations. The team recommends that the SR Executive Technical Management Board evaluate the following areas requiring attention from a site-wide perspective:

- Integrating the TQP with Critical Technical Capability initiatives;
- Revising SR's procedure to take full advantage of the flexibility afforded by the Department's revised 93-3 Implementation Plan to develop functional areas tailored to SR needs (e.g., Authorization Basis Specialist or Project Manager, coordinating with DOE Headquarters Field Management project management initiatives as necessary);
- Improving the technical benefit obtained from the Senior Technical Safety Manager Functional Area;
- Ensuring appropriate use of equivalencies in all organizations;
- Establishing TQP participant continuing education guidelines (similar to requirements for industry standard professional credentials and licenses);
- Identifying ways to better integrate external certifications and licenses; and
- Integrating non-93-3 technical qualification programs in use at SR (e.g., Albuquerque Quality Assurance certification, NEPA) with the 93-3 Technical Qualification Program.

SR Technical Qualification Program Functional Areas

The following 21 Functional Areas are currently in use at SR:

- Senior Technical Safety Manager
- Facility Maintenance Management
- Environmental Compliance
- Nuclear Systems Safety
- Mechanical Systems
- Facility Representative
- Fire Protection
- Instrument and Control
- Emergency Management
- Waste Management
- Industrial Hygiene
- Technical Training
- Radiation Protection
- Civil/Structural Engineering
- Safeguards & Security
- Chemical Processing
- Occupational Safety
- Construction Management & Engineering
- Electrical Systems
- Environmental Restoration
- Quality Assurance

Assessment Objectives and Criteria

This assessment was based on the DOE Federal Technical Capability Program guidance document, "Technical Qualification Program Assessment Guidance and Criteria," dated July 1998. The guidance document identifies seven TQP objectives (TQP 1-7) and supporting criteria. In addition to these DOE-wide criteria, the SR team has included an additional area of emphasis (TQP-8) focused on planning (Critical Technical Capability preservation).

TQP-1: Demonstration of Competence. The program clearly identifies and documents the process used to demonstrate employee technical competence.

1.1 At a minimum, personnel providing management direction or oversight that could impact the safe operation of a defense nuclear facility have been identified as participants in the Technical Qualification Program.

1.2 Individual Development Plans (IDPs), training plans, technical qualification records, or other related documents are updated to reflect the activities that each individual shall participate in to satisfy competencies.

1.3 A formal evaluation process is in place to objectively measure the technical competency of personnel. The rigor of the evaluation process is commensurate with the responsibilities of the position.

1.4 The Technical Qualification Program is integrated with personnel-related activities such as position descriptions, vacancy announcements, recruiting, and performance appraisals.

TQP-2: Competency Levels: Competency requirements are clearly defined and consistent with applicable industry standards for similar occupations.

2.1 Competency requirements include clearly defined knowledge, skill, and ability elements.

2.2 Subject matter experts are involved in establishing competency.

2.3 Consideration of related professional certification requirements is included in the program as applicable.

2.4 Competency requirements are identified in the areas of Basic Technical Knowledge, Technical Discipline Competency, and Site or Facility Specific Competency.

TQP-3: Plans and Procedures: Plans and/or procedures are developed and implemented to govern the administration of the program.

3.1 The Technical Qualification Program has the commitment of senior management.

3.2 Written procedures that adequately define the processes and requirements to implement the Technical Qualification Program are in place.

3.3 Roles and responsibilities for the implementation of the Technical Qualification Program are clearly defined and understood by all involved.

3.4 The procedures that govern the implementation of the Technical Qualification Program are understood by all involved and are being implemented as written.

3.5 A training and qualification records system is established for each employee in the Technical Qualification Program.

TQP-4: Qualification Tailored to Work Activities: The program includes the identification of unique Department and position-specific work activities, and the knowledge and skills necessary to accomplish that work.

4.1 An analysis has been performed to identify the related knowledge, skill and ability elements to accomplish the duties and responsibilities for each Technical Qualification Program functional area or position.

4.2 The program includes job-specific requirements related to the rules, regulations, codes, standards, and guides necessary to carry out the mission of the office.

4.3 The program supports the mission needs of the office.

TQP-5: Credit for Existing Technical Qualification Program(s): The program is structured to allow credit, where appropriate, for other technical qualification program accomplishments.

5.1 Credit (equivalency) is granted for previous training, education, experience and completion of related qualification/certification programs, where applicable.

5.2 Equivalency is granted based upon a review and verification of objective evidence such as transcripts, course certificates, test scores or on-the-job experience.

5.3 Equivalencies are validated, approved and documented in a formal manner.

TQP-6: Transportability: Competency requirements that are identified as having Department-wide applicability are transferable.

6.1 The program includes all of the competencies that have been identified as having Department-wide applicability.

6.2 Formal documentation of the completion of Department-wide competencies is maintained in a manner that will allow for easy transferability.

6.3 *This criterion is addressed as item 1.4.*

TQP-7: Measurable: The program contains sufficient rigor to demonstrate compliance to the principles.

7.1 The technical competency of personnel who have completed the requirements the Technical Qualification Program is adequate and appropriate.

7.2 The program allows for continuous feedback and periodic evaluation to ensure that it meets the needs of the Department and the mission(s) of the office.

7.3 The Program provides provisions for continuing training.

TQP-8: Planning (Critical Technical Capability Preservation). SR has a system in place to ensure the availability of competent personnel to fill Critical Technical Capability positions over the next five years.

8.1 SR has a long-range plan to identify and develop needed critical skills.

8.2 SR's TQP is integrated with strategic planning and workforce development.

Documents Reviewed and Personnel Interviewed

Documents Reviewed

- Savannah River Implementing Procedure 361.5, "Federal Technical Workforce Training and Qualification," (rev. 4/27/97).
- Savannah River Manual 300.1.1A, Chapter 6, Section 6.1, "Technical Training and Qualification Programs," (signed by SR Manager 5/20/98).
- DOE Revised Implementation Plan for Improving DOE Technical Capability in Defense Nuclear Facilities Programs (Recommendation 93-3), Rev. 1.d, March 31, 1998.
- Draft Procedure SRM 300.1.1A Chapter X, "SR Performance Management Process" including sample individual Performance and Development Plan.
- Human Resources Management & Development Division Phase I 93-3 Assessment Talking Paper.
- Memo, Greg Rudy (Manager) to Distribution, "Savannah River Operations Office Executive Technical Management Board," April 22, 1998.
- Memo, Frank McCoy (Deputy Manager and SR Federal Technical Capability Agent) to Thomas Evans, "Savannah River Operations Office Critical Technical Capabilities Retention," August 12, 1998.
- Selected Functional Area and Facility-Specific Standards.
- Training Management & Development Group listing of 93-3 Personnel.
- Selected Technical Qualification Records:

1. Aleman, Sue
2. Anderson, John
3. Barber, Don
4. Billue, Robert
5. Blake, Don
6. Borba, Gary
7. Christenbury, Glenn
8. Dearolph, Doug
9. Dholokia, Mike
10. Dumas, Jere
11. Edwards, Christina
12. Faubert, David
13. Folk, James
14. Harris, Charles
15. Heenan, Thomas
16. Hixon, Doris
17. Jackson, Donna
18. Johnson, Sandra
19. Kekacs, James
20. Kirkland, Patricia
21. Langford, Mary
22. McAlhany, Sachiko
23. McGuire, Patrick
24. Nichols, Gordon
25. Peterson, Gary
26. Radford, Charles
27. Robinson, Ray
28. Ross, Sherri
29. Schepens, Roy
30. Shelt, Steve
31. Shepard, Norman
32. Sidey, Kim
33. Sjostrom, Len
34. Smith, Timothy
35. Tam, Lawrence
36. Taylor, Jerald
37. Temple, T.
38. Temples, T. J.
39. Vest, Gary
40. Waltzer, Karl
41. Williamson, David
42. Wilmot, Ed
43. Woodworth, Marc
44. Yaffee, Gary

Personnel Interviewed (85)

The assessment team interviewed Assistant Managers/Office Directors and their training liaisons; Division Directors; and non-management participants in all organizations with TQP participants. The team also interviewed human resource and training administrative support personnel. Targeted Lines of Inquiry were developed for each group (management, non-management participants, and administrative support).

	Name	Position	Organization	Functional Area
1.	Adams, Angela	Staff	Health, Safety & Technical Support	Facility Maintenance Management
2.	Allison, Jeffrey	Deputy Assistant Manager	Health, Safety & Technical Support	STSM
3.	Anderson, Charles	Division Director	Material & Facility Stabilization	STSM
4.	Anderson, Cynthia	Division Director	Environmental Quality Environmental Restoration Division	STSM
5.	Anderson, John	Acting Assistant Manager	Material & Facility Stabilization	STSM
6.	Armstrong, Brent	Assistant Manager	Business & Logistics	N/A
7.	Baker, Robert	Staff	Environmental Quality	(EQ ER)
8.	Besecker, Ken	Division Director	National Security	N/A
9.	Blanco, Soni	Staff	High Level Waste	Mechanical Systems
10.	Boyd, Gaile	Staff/Training Liaison	High Level Waste	N/A
11.	Boyll, David	Staff	Health, Safety & Technical Support	Fire Protection
12.	Brown, F. D.	Staff	Health, Safety & Technical Support	Emergency Management
13.	Burke, Pat	Staff	Site Services Division	TBD
14.	Cannon, Scott	Staff	Environmental Quality	Waste Management
15.	Chambers, Billy	Staff	Material & Facility Stabilization	Nuclear Safety Systems
16.	Christenbuy, Glen	Staff	High Level Waste	Mechanical Systems
17.	Cohen, J. P.	Staff	Health, Safety & Technical Support	Industrial Hygiene
18.	Czuchna, Craig	Staff	National Security	Environmental Compliance
19.	Danker, Steve	Staff	Health, Safety & Technical Support	(HSTS TQP)
20.	Dayani, Mosi	Staff	Health, Safety & Technical Support	Nuclear Safety Systems
21.	Dearolph, Doug	Staff	Health, Safety & Technical Support	Facility Representative

	Name	Position	Organization	Functional Area
22.	Dholokia, Mike	Staff	High Level Waste	Civil/Structural
23.	Doswell, Alice	Team Leader	Health, Safety & Technical Support	STSM
24.	Dumas, Jere	Staff	Safeguards & Security	Safeguards & Security
25.	Edwards, Christina	Staff	Health, Safety & Technical Support	Emergency Management
26.	Everatt, Carl	Division Director	High Level Waste Operations Division	STSM
27.	Frazer, William	Staff	Health, Safety & Technical Support	Radiation Protection
28.	Frizzell, Terry	Division Director	Humans Resources Management & Development Division	N/A
29.	Gillas, Dawn	Staff	Material & Facility Stabilization	Nuclear Safety Systems
30.	Gnann, Howard	Division Director	High Level Waste Programs Division	STSM
31.	Goehle, Robert	Staff	National Security	Construction Management & Engineering
32.	Gould, A. Ben	Division Director	Environmental Quality Environmental Compliance Division	STSM
33.	Grainger, Drew	Staff	Health, Safety & Technical Support	(HSTS TQP)
34.	Guerry, James	Staff	High Level Waste	Electrical Systems
35.	Gunter, Alan	Staff	Material & Facility Stabilization	Nuclear Safety Systems
36.	Gutmann, Thomas	Staff	High Level Waste	Mechanical Systems
37.	Hannah, Ray	Staff	High Level Waste	Environmental Restoration
38.	Heenan, Thomas	Assistant Manager	Environmental Quality	STSM
39.	Hickman, Jerry	Staff	Safeguards & Security	Safeguards & Security
40.	Hixon, Doris	Participant and Training Administrator	Training Management & Development Group	Technical Training
41.	Hooker, Karen	Division Director	Environmental Quality Program Management Division	STSM
42.	Hoover, Gary	Staff	Environmental Quality	Environmental Compliance
43.	Johnson, Sandy	Division Director	Material & Facility Stabilization	STSM
44.	Kirkland, Patricia	Staff	Science, Technology & Business Development	Waste Management
45.	Ling, Larry	Staff	High Level Waste	Chemical Processing
46.	Little, Gary	Staff/Training Liaison	Environmental Quality	N/A

	Name	Position	Organization	Functional Area
47.	Lyde, Willard	Human Resource Specialist	Organization & Workforce Management Group	N/A
48.	Massingill, Stan	Staff	Environmental Quality	Waste Management
49.	McAlhany, Sachiko	Staff	Material & Facility Stabilization	Nuclear Safety Systems
50.	McCoy, Frank	Deputy Manager	Office of the Manager	STSM
51.	Middleton, Seaward	Staff	High Level Waste	Emergency Management
52.	Miller, Guy	Staff	National Security	Facility Maintenance Management
53.	Montgomery, Terry	Staff	Science, Technology & Business Development	Civil/Structural Engineering
54.	Nelson, Dyanna	Staff	Science, Technology & Business Development	TBD
55.	Newell, Joseph	Staff	National Security	Nuclear Safety Systems
56.	Nichols, Gordon	Division Director	Material & Facility Stabilization	STSM
57.	Noll, William	Division Director	Environmental Quality Solid Waste Division	STSM
58.	O'Rear, Michael	Division Director	Material & Facility Stabilization	STSM
59.	Ogletree, Laurence	Office Director	Safeguard& Security	N/A
60.	Peterson, Gary	Staff	Material & Facility Stabilization	Nuclear Safety Systems
61.	Powell, Diane	Staff/Training Liaison	National Security	N/A
62.	Pullen, John	Staff	Health, Safety & Technical Support	Nuclear Safety Systems
63.	Reames, Marilyn	Staff	Health, Safety & Technical Support	(HSTS TQP)
64.	Richardson, Wayne	Division Director	National Security	STSM
65.	Rudy, Greg	Manager	Office of the Manager	N/A
66.	Schepens, Roy	Acting Assistant Manager	High Level Waste	STSM
67.	Shelt, Steve	Staff	Safeguards & Security	Safeguards & Security
68.	Sidey, Kim	Staff	Material & Facility Stabilization	Nuclear Safety Systems
69.	Singh, L. P.	Staff	Health, Safety & Technical Support	Industrial Hygiene
70.	Smartt, John	Staff	Health, Safety & Technical Support	Nuclear Safety Systems
71.	Smith, Mark	Staff	Health, Safety & Technical Support	Nuclear Safety Systems
72.	Smith, Tim	Staff	Material & Facility Stabilization	Nuclear Safety Systems
73.	Snyder, Larry	Division Director	Site Services Division	STSM

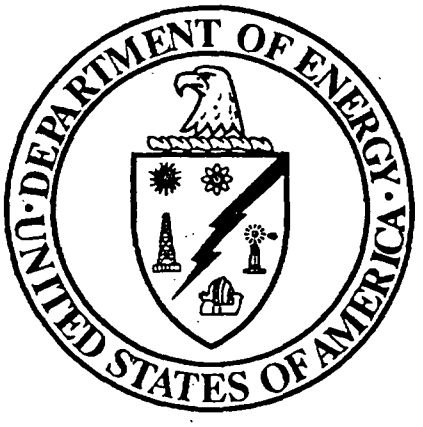
	Name	Position	Organization	Functional Area
74.	Spader, Bill	Division Director	High Level Waste Engineering Division	STSM
75.	Spears, T. J.	Deputy Assistant Manager	Science, Technology & Business Development	N/A
76.	Taylor, Jerry	Staff	Material & Facility Stabilization	Technical Training
77.	Temples, Tom	Staff	High Level Waste	Nuclear Safety Systems
78.	Temples, Tom J.	Staff	Environmental Quality	Environmental Restoration
79.	Thames, Ken	Staff	Health, Safety & Technical Support	Nuclear Safety Systems
80.	Whetsell, Dave	Staff	National Security	Facility Maintenance Management
81.	Whitaker, Wade	Staff	Environmental Quality	Environmental Compliance
82.	Williams, Thomas	Division Director	Safeguards & Security Safeguards & Evaluation Division	N/A
83.	Willoner, Terry	Staff	National Security	Mechanical Systems
84.	Wilmot, Ed	Assistant Manager	National Security	STSM
85.	Woodworth, Marc	Staff	Material & Facility Stabilization	Nuclear Safety Systems

SEPARATION

PAGE

FEDERAL TECHNICAL CAPABILITY PROGRAM

TECHNICAL QUALIFICATION PROGRAM ASSESSMENT GUIDANCE AND CRITERIA



Federal Technical Capability Panel
and the
Office of Human Resources and Administration

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

July 1998

INTRODUCTION

The Department of Energy's revised Implementation Plan for Defense Nuclear Facilities Safety Board Recommendation 93-3 enhances current Departmental initiatives to establish a Federal Technical Capability Program for federal technical employees with safety responsibilities at defense nuclear facilities. Part of that Implementation Plan requires the upgrade of the Technical Qualification Program (TQP) based upon a formal assessment process. This document establishes the guidance and criteria for conducting these assessments across the Department.

The approach that will be followed to upgrade the effectiveness of the Technical Qualification Program will commence with an initial (Phase I) assessment of the existing program. This assessment will be followed by development of revised Technical Qualification Program Plans, implementation of the revised Program Plans, and a Phase II assessment to evaluate the effectiveness of the upgrade process.

Phase I Assessments will be used as the basis for revising, as appropriate, the direction of the Technical Qualification Program for the office. Deficiencies in Technical Qualification Program Plans will be corrected using the Systematic Approach to Training methodology to identify position requirements, individual competence, and developmental needs. The revised Technical Qualification Program Plans will be provided to the Federal Technical Capability Panel for review to ensure that each office's Plan is consistent with the Technical Qualification Program principles.

A Phase II assessment will be conducted after the Technical Qualification Program is revised in accordance with the Technical Qualification Program Plans, and is being implemented. Phase II Assessments will continue periodically for the duration of the Program.

The guidance and criteria contained in this document are to be used as the basis for both the Phase I and the Phase II assessments. It is assumed that Phase I assessments will result in the identification of some deficiencies against the criteria established in this document. If the TQP upgrade process is effectively implemented, Phase II assessments should result in the identification of few, if any, deficiencies.

S.D. Richardson 7/23/98

S.D. Richardson, Chair
Federal Technical Capability Panel

GUIDANCE FOR PERFORMING THE ASSESSMENT

Establishing the Technical Qualification Program (TQP) Assessment Team

The TQP Assessment Team consists of a Team Leader and Team Members. The team will also include representation from the Federal Technical Capability Panel to provide mentoring, rigor, and to ensure a consistent approach. The representative from the Federal Technical Capability Panel may serve as the Team Leader. The TQP Assessment Team will report to the Office Manager.

TQP Assessment Team Leader

The roles and responsibilities of the TQP Assessment Team Leader are as follows:

- Serves as the project manager for all TQP Assessment Team activities and acts as the primary point-of-contact with the organization being assessed.
- Coordinates the activities of TQP Assessment Team members and ensures that assessment activities are performed in a competent and professional manner.
- Prepares and submits the final report to the Office Manager who approves and forwards it to the Federal Technical Capability Panel

The TQP Assessment Team Leader is selected and/or approved by the Office Manager. The Team Leader does not necessarily have to be from the office being assessed. The Office Manager selects the most qualified individual to do the job. In making the selection, the following criteria should be considered:

- The individual is a senior level (GS-15 or above) line manager with knowledge of, and experience with, the Technical Qualification Program. It is recommended that the TQP Assessment Team Leader be a Senior Technical Safety Manager.
- The individual has experience leading an evaluation or project team;
- The individual, by virtue of reputation, background, and/or experience, will be respected by the organization being assessed.

TQP Assessment Team Members

The roles and responsibilities of the TQP Assessment Team Members are as follows:

- Perform assessment activities assigned by the TQP Assessment Team Leader in a confidential, competent and professional manner.

- Provide input to the TQP Assessment Team Leader for the writing of the TQP Assessment Report as requested.

The TQP Assessment Team Leader has the primary responsibility for the selection of the Team Members. The importance of this task cannot be overemphasized. No other task has such a direct impact on the overall quality of the assessment. The TQP Assessment Team may consist of members from the office being assessed, other DOE field or headquarters offices, and independent technical experts. The number and type of personnel on the team may vary based upon the size of the office, the time allotted, and the availability of qualified personnel. Typically, a TQP Assessment Team will have a Team Leader and three to five Team Members.

The following guidelines should be used by the Team Leader when selecting Team Members:

- The Assessment Team should consist of a combination of line personnel with a strong technical background, and personnel with a background in the design, development, implementation or management of technical training and qualification programs.

- Assessment Team Members should have technical experience relevant to their assignment, and should also have some experience conducting program assessments. This experience provides the background for Team Members to work independently at an unfamiliar location, gather information quickly, and make objective recommendations.

- Use of the Core Technical Group should be considered when assembling the assessment team.

- The Team Leader should determine whether any conflict of interest, actual or perceived, exists for any potential Team Member. If so, that Team Member must not be considered further;

- Team Members, by virtue of their reputation, background, and/or experience, should be respected by the organization requesting the assistance.

Scheduling the Assessment

Technical Qualification Program Assessments should be scheduled four to six weeks prior to conducting the assessment. The assessment should be scheduled by the Assessment Team Leader, which means that the Team Leader should be identified six to eight weeks before conducting the assessment.

The Team Leader should draft a short letter or memorandum from the Office Manager announcing the assessment. The letter should be sent to all of the Office Manager's direct reports, and should be promulgated to all personnel that may be involved in the assessment. At a minimum, this includes all personnel currently in the Technical Qualification Program and their supervisors/managers. The letter should identify the Team Leader, Team Members (if they are known), and the Federal Technical Capability Panel representative. It should address the purpose and time period of the assessment, and reflect the support of the Manager. The Objectives and Criteria may be attached to the letter for reference.

The Team Leader should identify all Assessment Team Members as early as possible to ensure the availability of appropriate expertise. This will ensure the proper make-up of the team, and allow time for preparation activities prior to conducting the assessment.

Conducting the Assessment

An initial team meeting should be conducted prior to the team beginning the assessment. The initial team meeting provides the opportunity for the Assessment Team Members to get acquainted. It is also the point at which the Assessment Team Leader describes in detail the agenda, expectations and assignments for the assessment. Televideo conferences should be considered to minimize travel and time spent away from normal work assignments.

The Assessment Team Leader may want to schedule a brief kick-off meeting with select members of the office before commencing the assessment. Introductions and points of contact can be established at this meeting. The Team Leader should provide a brief summary of the purpose of the assessment, the schedule, and any particular needs of the team.

The Objectives and Criteria included in this document form the basis for conducting the assessment. The assessment report will be written based upon current status of achieving the objectives and criteria. Each of the criteria should be assessed independently, but within the scope of achieving the objective. The Team Leader may assign individual criteria or entire objectives to Team members to assess. Assignments should be based upon the size of the team and strengths of individual team members. Team members should determine the status of achieving the objectives and criteria based upon the following:

- reviewing documents such as qualification cards, qualification standards, and other related documents;
- reviewing individual qualification records and training plans;
- observing Technical Qualification Program activities;
- interviewing current and previous participants in the Technical Qualification Program;
- interviewing supervisors of participants in the program
- interviewing senior management

When conducting the assessment, the Team Leader and Team members should also consider the following:

- Team Members may work independently during the assistance visit. However, they must ensure that they plan and schedule their activities in a manner that will allow them to accomplish their assigned tasks, minimize disruptions to normal site activities, and keep the Team Leader aware of their schedule of activities on a daily basis.

- Team Members should work together during interviews of site personnel to minimize redundancy.

- Team Members are accountable for the accuracy or the information they gather and the accuracy of any report or recommendations that they make as a result of that information. Team Members are to keep detailed notes, checklists, etc., to document the information gathered during interviews, observations or document reviews. Notes that explain the basis for identified issues or recommendations are to be provided to the Team Leader at the completion of assistance activities.

- Assessment Team Members should meet as a group at the end of each working day. The meetings may be conducted either on-site or off-site. Depending upon the scope and complexity of the assessment, these may be formal or informal meetings. Each Team Member should briefly discuss the activities within their area of responsibility including any potential issues or concerns that may have been identified. The Assessment Team Leader should encourage the identification of any unclear areas. This is important so that others may consider them later. The Assessment Team Leader should also continually insist on validation of facts and information submitted by Team Members.

- Whenever possible, Team Members should try to get more than one perspective when evaluating a program or process, particularly if it appears that a significant deficiency exists. This can be accomplished by doing things such as backing up document reviews with interviews, or interviewing two different individuals (e.g., training staff and line management) about the same topic.

- Daily status meetings with personnel from the Office being assessed should be considered to ensure that they are aware of any potential issues and to clarify concerns.

The Assessment Team Leader will conduct a close-out meeting with office personnel at the completion of the assessment. The Team Leader should briefly describe the activities of the team, identify conclusions and/or recommendations as they are known at the time of the meeting, discuss the schedule for delivery of the assessment report, and remind personnel that the report will be submitted to the Office Manager and the Federal Technical Capability Panel.

Assessment Report

The results of the Technical Qualification Program Assessment are documented in a written report. The report should be written by the Assessment Team Leader with assistance from the Assessment Team Members. The format of the Technical Qualification Program Assessment Report should be as follows:

1. Cover page - this should include the title of the report including the name of the office assessed, and the date of the report.

2. Executive Summary - this section should be limited to one page and provide a short overview of the team composition, dates of the assessment and methodology. A brief description of the results of the assessment should be provided, including strengths and weaknesses.

3. Introduction - this section should provide relative background information, a description of the purpose of the report, and briefly describe the format of the report.

4. Scope and Methodology - this section should identify the Team Leader and Team Members, reference the use of the objectives and criteria, and briefly describe the methodology applied.

5. Results - this section should be subdivided into eight sections to individually address each of the seven objectives listed in the document, and to address the overall program. The report should describe the current status of achieving the objective, including the identification of any strengths or weaknesses. It is not necessary to individually address each of the criteria for the objectives, however, if any of the criteria are not achieved, a deficiency(s) should be identified for the objective.

6. Summary - this section should provide an overall status of the program and list general recommendations if applicable.

7. Attachments - the following attachments should be included with the report:

- The objectives and criteria
- List of personnel contacted and documents reviewed
- Any other pertinent information

Team Members should be given an opportunity to review and comment on the report before its issuance. The report should be approved by the Assessment Team Leader and forwarded to the Office Manager. The Office Manager should forward the report to the Chairperson of the Federal Technical Capability Panel for review.

TECHNICAL QUALIFICATION PROGRAM ASSESSMENT OBJECTIVES AND CRITERIA

TQP-1 **Demonstration of Competence**: The program clearly identifies and documents the process used to demonstrate employee technical competence.

Criteria

1.1 At a minimum, personnel providing management direction or oversight that could impact the safe operation of a defense nuclear facility have been identified as participants in the Technical Qualification Program.

1.2 Individual Development Plans (IDPs), training plans, technical qualification records, or other related documents are updated to reflect the activities that each individual shall participate in to satisfy competencies.

1.3 A formal evaluation process is in place to objectively measure the technical competency of personnel. The rigor of the evaluation process is commensurate with the responsibilities of the position.

TQP-2 **Competency Levels**: Competency requirements are clearly defined and consistent with applicable industry standards for similar occupations.

Criteria

2.1 Competency requirements include clearly defined knowledge, skill, and ability elements.

2.2 Subject matter experts are involved in establishing competency requirements.

2.3 Consideration of related professional certification requirements is included in the program as applicable.

2.4 Competency requirements are identified in the areas listed below (Note: this does not imply that three separate documents are required).

- Basic Technical Knowledge: This includes basic fundamental knowledge of radiation protection, occupational safety, chemical safety, nuclear safety, environmental regulations, and other areas.

- Technical Discipline Competency: Competency in a technical discipline (e.g., mechanical engineering, chemical engineering) which can be demonstrated by education, professional certification, examination or on-the-job performance.

- Position Knowledge, Skills, and Abilities: Specific to the position and the office.

TQP-3 **Plans and Procedures**: Plans and/or procedures are developed and implemented to govern the administration of the program.

Criteria

3.1 The Technical Qualification Program has the commitment of senior management.

3.2 Written procedures that adequately define the processes and requirements to implement the Technical Qualification Program are in place.

3.3 Roles and responsibilities for the implementation of the Technical Qualification Program are clearly defined and understood by all involved.

3.4 The procedures that govern the implementation of the Technical Qualification Program are understood by all involved, and are being implemented as written.

3.5 A training and qualification records system is established for each employee in the Technical Qualification Program.

TQP-4 **Qualification Tailored to Work Activities**: The program includes the identification of unique Department and position-specific work activities, and the knowledge and skills necessary to accomplish that work.

Criteria

4.1 An analysis has been performed to identify the related knowledge, skill, and ability elements to accomplish the duties and responsibilities for each Technical Qualification Program functional area or position.

4.2 The program includes job-specific requirements related to the rules, regulations, codes, standards, and guides necessary to carry out the mission of the office.

4.3 The program supports the mission needs of the office.

TQP-5 **Credit for Existing Technical Qualification Program(s)**: The program is structured to allow credit, where appropriate, for other technical qualification program accomplishments.

Criteria

5.1 Credit(equivalency) is granted for previous training, education, experience and completion of related qualification/certification programs, where applicable.

5.2 Equivalency is granted based upon a review and verification of objective evidence such as transcripts, course certificates, test scores or on-the-job experience.

5.3 Equivalencies are validated, approved and documented in a formal manner.

TQP-6 **Transportability**: Competency requirements that are identified as having Department-wide applicability are transferable.

Criteria

6.1 The program includes all of the competencies that have been identified as having Department-wide applicability.

6.2 Formal documentation of the completion of Department-wide competencies is maintained in a manner that will allow for easy transferability.

6.3 The Technical Qualification Program is integrated with personnel-related activities such as positions descriptions, vacancy announcements, recruiting, and performance appraisals.

TQP-7 **Measurable**: The program contains sufficient rigor to demonstrate compliance to the principles.

Criteria

7.1 The technical competency of personnel who have completed the requirements of the Technical Qualification Program is adequate and appropriate.

7.2 The program allows for continuous feedback and periodic evaluation to ensure that it meets the needs of the Department and the mission(s) of the office.

7.3 The Program includes provisions for continuing training