Department of Energy

Washington, DC 20585

February 16, 1999

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
upgrading, where necessary, the existing federal staff to ensure that they possess the
necessary knowledge, skills, and abilities to competently carry out their safety management
responsibilities.

As a deliverable pursuant to Commitment 5.4.2.1 of the IP, the Federal Technical Capability
Panel analyzed the Phase I Assessment reports generated by assessments of the Technical
Qualification Programs at the defense facilities sites. The Panel reviewed the reports and
concluded that the assessments were thorough and provided a good baseline for
improvements to those programs. The Panel assembled a summary report of its review and a
copy of that summary is enclosed.

The Department has completed the actions identified under Commitment 5.4.2.1 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,

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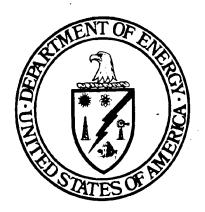Federal Technical Capability Panel

Enclosure

cc:

Steve Richardson, Panel Chair
Panel Members
Mark B. Whitaker, Jr., S-3.1

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U. S. Department of Energy
Federal Technical Capability Panel

SUMMARY REPORT

ANALYSIS OF THE PHASE I TECHNICAL
QUALIFICATION PROGRAM (TQP) ASSESSMENTS

Washington, D.C. 20585

December 21, 1998

SUMMARY REPORT

ANALYSIS OF THE PHASE I TECHNICAL QUALIFICATION PROGRAM (TQP) ASSESSMENTS BY THE FEDERAL TECHNICAL CAPABILITY PANEL

Background

Commitment 5.4.2. of the revised Implementation Plan for DNFSB Recommendation 93-3 requires that Program and Field Offices conduct Phase I Assessments of the Technical Qualification Program (TQP). These assessments were completed in October 1998.

Commitment 5.4.2.1 of the Implementation Plan requires the analysis of the Phase I Assessment reports by the Federal Technical Capability Panel (Panel). A peer review process was used to facilitate this analysis and was completed in November 1998. This Summary Report describes the analysis process, provides a summary of the results of the analysis, and lists the common TQP issues identified by the various offices in their Phase I Assessment Reports.

Description of the Analysis Process

Each Phase I Assessment Report underwent an independent peer review by two other Panel members. The peer review assignments ensured that no two organizations would review each others reports. To ensure consistency, the peer reviews were conducted in accordance with a guidance document developed and approved by the Federal Technical Capability Panel. A copy of the guidance document is included as Attachment One.

The Executive Secretary of the Panel transmitted copies of the completed Assessment Reports to the applicable peer reviewers. The peer reviews were conducted independently using the checklist provided with the guidance document. The peer reviewers and the office being reviewed discussed the results of the reviews and changes or improvements were recommended as applicable. The completed peer review checklists were returned to the Executive Secretary of the Panel The results of the peer reviews were discussed during the November and December meetings of the Panel.

Summary of the Results of the Peer Reviews

Overall, the results of the peer reviews and analysis by the Panel indicate that the Phase I Assessments were conducted in accordance with the TQP Assessment Criteria and Guidance issued by the Panel, and they met the intent of Commitment 5.4.2 in the 93-3 Implementation Plan. All of the assessments were conducted by personnel with qualifications and background that met the intention of the Assessment Guidance, and each assessment had Panel representation.

One of the more significant concerns noted during the peer reviews was related to the assessment conducted by Defense Programs (DP). The TQP has been dormant for over a year in DP, and much of the assessment was based upon reviewing the "former" program as opposed to reviewing the current status. DP expects a significant reorganization early in CY99 and will rework its TQP when the results of the reorganization are known. The Panel agreed that while this was not the best of situations, it was considered adequate for the purposes of the Phase I Assessment. Environmental Management was in a similar situation in that the EM TQP was on hold because of issues related to discussions with the National Treasury Employees Union (NTEU). The Office of Environment, Safety and Health (EH) also has implementation issues associated with the NTEU. The Panel has agreed to continue to monitor TQP progress in these Offices and will pay particular attention to the revised TQP Program Plans to be completed in December 1998.

All of the peer reviewers provided comments on the assessment reports. A summary of representative comments is provided in Attachment Two for reference. The completed peer review checklists are on file with the Executive Secretary of the Panel.

Common Issues Identified in the Phase I Assessment Reports

In addition to the peer review process, an independent review of the Phase I Assessment Reports was conducted by the Panel staff. The purpose of this review was not to make a determination as to the adequacy of the assessments. Rather, it was to identify common TQP implementation issues, or areas of needed improvement noted by the various offices during their assessments. The common issues or areas of needed improvement are listed below.

1.   By far, the most commonly identified area needing improvement had to do with the integration of human resources and personnel activities with the Technical Qualification Program. Nearly all of the offices identified this issue in one form or another. This includes things such as including TQP roles and responsibilities in position descriptions; integrating TQP requirements in vacancy announcements and the hiring process; more interaction between personnel offices, training offices and line management, etc.

2.   Continuing training programs and applicable requalification requirements need to be identified and formalized to support the ongoing implementation of the Technical Qualification Program.

3.   New qualification standards need to be developed and existing qualification standards need to be updated to fully support implementation of the TQP. This includes both the Functional Area Qualification Standards that had been previously developed by DOE-HQ and office/facility-specific qualification standards.

4.   Many offices indicated some type of upgrade or improvement was necessary in the identification of personnel required to participate in the program and the assignment of

those personnel to specific functional areas. This varied from the need to include non-defense facility personnel, to the need for better implementation guidance for selecting personnel, to scaling down the number of personnel in the program.

5.   A process must be developed and institutionalized to ensure that the Technical Qualification Program is continually reviewed and updated to support the mission and needs of the organization. Specifically this related to establishing a local process that ensures that organization, mission, and technology changes are reviewed for impact on the program, and that the program is modified as necessary to support these changes.

6.   The evaluation process to verify that TQP participants possess the competencies identified in the qualification standards needs to be implemented more consistently, and in some cases, with more rigor and formality. This included actions such as development and implementation of more specific procedures, identification of SMEs or qualifying officials, formalizing the check out process, etc.

7.   The use of equivalencies needs to be accomplished in a more consistent manner, in accordance with established procedures or other guidance.

8.   Several of the offices noted a lack of line management involvement and/or ownership in the program. In most cases, those offices that noted this deficiency indicated that it was a significant issue that must be resolved to ensure effective implementation of the program.

ATTACHMENT ONE

Guidance for Reviewing Phase I Assessment Reports

FEDERAL TECHNICAL CAPABILITY PANEL PEER REVIEW
OF PHASE I TQP ASSESSMENT REPORTS

Introduction

Commitment 5.4.2. of the revised Implementation Plan for DNFSB Recommendation 93-3 requires that Program and Field Offices conduct Phase I Assessments of the Technical Qualification Program (TQP). These assessments are ongoing, and will be completed by September 30, 1998.

Commitment 5.4.2.1 requires the analysis of the Phase I Assessment reports by the Federal Technical Capability Panel. The Implementation Plan commitment date to complete this analysis is November 30, 1998. However, an attempt will be made to expedite this process to ensure that feedback from the analysis can be factored into the development of updated TQP Program Plans by each affected office. A peer review process will be used to facilitate this analysis and minimize the workload on Panel members.

Description of the Analysis Process

Completed Phase I Assessment Reports will be submitted to the Executive Secretary of the Federal Technical Capability Panel, with a copy of the transmittal letter sent to the Chair of the Panel. This is to be completed by 9/30/98. The Executive Secretary will report to the Panel on the status of completion of the assessments.

Each Phase I Assessment Report will undergo a peer review by two other Panel members. The peer review will be conducted using the TQP Phase I Assessment Report Peer Review Checklist (attached). The Executive Secretary will transmit copies of the completed Assessment Reports to the applicable peer reviewers. Peer reviews are to be completed no later than October 23, 1998. The completed peer review checklist will be returned to the Executive Secretary of the Panel, who will forward a copy of them to the other Panel member doing the peer review, and the Panel member representing the office being reviewed.

The peer reviewers and the office being reviewed should discuss the results of the peer reviews.

A special meeting of the Federal Technical Capability Panel will be held the second week in November to discuss the results of the peer reviews. The peer reviewers will present their conclusions and any recommendations relating to the Assessment Reports. Any differences of opinion between the peer reviewers and the office being reviewed will be discussed by the Panel members. The results of the special meeting, including any recommendations, will be documented in a report by the Panel.

Peer Review Assignments

Phase I Assessment Reports	Peer Reviewers
Defense Programs	Idaho & Rocky Flats
Environment, Safety and Health	Defense Programs & Albuquerque
Environmental Management	Environment, Safety and Health & Nevada
Albuquerque	Oak Ridge & Ohio
Idaho	Oakland & Richland
Nevada	Ohio & Oakland
Oak Ridge	Richland & Environment, Safety and Health
Oakland	Environmental Management & Savannah River
Ohio	Idaho & Oak Ridge
Richland	Defense Programs & Rocky Flats
Rocky Flats	Nevada & Savannah River
Savannah River	Environmental Management & Albuquerque

TQP Report: _____

Peer Reviewer: _____

Date of Review: _____

Results of Peer Review

1. Based upon a review of the assessment report, it appears that the intent of each of the seven objectives in the TQP Assessment Criteria and Guidance document were adequately addressed.

   Yes _____   No _____

   Comments :

2. The Phase I Assessment was conducted by a group of personnel with qualifications and background that met the intention of the Assessment Guidance. The team had representation from the Federal Technical Capability Panel as stated in the Implementation Plan.

   Yes _____   No _____

   Comments :

3. Based upon your review of the report, identify the primary issues/concerns that must be addressed at this location to improve or fix the Technical Qualification Program.

4. Do the conclusions and recommendations contained in the report appear to adequately address the problems found during the assessment? List any other actions that you would recommend to correct or improve the Technical Qualification Program at this location.

5. Provide any comments that you feel <u>must be addressed</u> in order for this assessment report to meet the intention of the commitment in the Implementation Plan and serve as a useful tool for the Office to develop an updated TQP Program Plan.

6. Provide any comments that you feel <u>should be considered</u> to improve this report for it to serve as a useful tool for the Office to develop an updated TQP Program Plan.

7. Provide any general **comments below.**

ATTACHMENT TWO

Summary of Comments from Peer Review Checklists

ATTACHMENT TWO - Summary of Comments from Peer Review Checklists

The following is a synopsis of the comments and responses provided by the peer reviewers. This listing is provided for reference purposes only. The actual review checklists are on file with the Executive Secretary of the Federal Technical Capability Panel.

Defense Programs Report Peer Reviewers Comments

The primary issue identified in the report is that DP needs to recommence implementation of the Technical Qualification Program. Other issues include improving line management involvement; clearly defining roles and responsibilities; measuring technical competency; policies and procedures not issued; IDPs not being used effectively; establishing criteria for participating in the program, and Position Descriptions not updated.

The assessment report describes weaknesses that existed in the program that was abandoned a year ago and has not been replaced. Nonetheless, the information will still be useful when a TQP is reestablished.

- The DP TQP assessment contains many good observations from the past program that can be used to reestablish a technical qualification program. However, the issue is that the program is not currently going anywhere pending further staff reductions and possible redeployment to the field. DP should make every attempt to reestablish the program - even if progress is slight it would be better than falling further behind.

Environmental, Safety, and Health Report Peer Reviewers Comments

The rigor and resource commitment to implement the TQP varies widely from office to office. The major issues that must be addressed are as follows: the resolution of the union issues to fully integrate all of EH into the program; providing resources to allow for full implementation of the program; recognition of external certifications and/or training; consistent application of program requirements across EH, and establishment of competitive categories if necessary.

The NTEU raised issues with the EH TQP because the union was not given an opportunity to bargain on a program proposal during development of the program. There were meetings and discussions, but a proposal was not submitted to the union for the purpose of bargaining.

The report indicates the TQP is not solidly institutionalized and there is too much variation in implementation across EH. It will be difficult for EH to have a fully effective program until it resolves the union issues and the program is accepted across the organization.

ATTACHMENT TWO - Summary of Comments from Peer Review Checklists

Environmental Management Report Peer Reviewers Comments

The assessment report does not need to be revised, but EM should ensure that the Technical Capability Program currently under development encompasses the weaknesses described in the discussion of each assessment objective and criterion.

• EM should discuss the compensatory measures in place for STSM position incumbents who have not completed qualification under the program.

The EM Phase I TQP Assessment appears to satisfy the commitment and to accurately describe the status of the program in EM. Correction of the deficiencies noted should result in an acceptable and effective program. Engagement of the union is essential for future success.

Albuquerque Report Peer Reviewers Comments

The assessment report identified a number of TQP deficiencies for the Albuquerque Operations Office. The implementation of corrective actions for each of the deficiencies will fix the program.

The plan for improving the TQP should include a crosswalk to the criteria in the TQP Assessment Criteria and Guidance document, and the results highlighted during the Phase II Assessment.

Senior line management ownership and accountability supported by a policy statement from the Operations Office Manager (if one does not exist) will enhance the program.

The report could address program completion status, including completion statistics by planned dates (e.g., May 1999, etc.).

The Albuquerque Operations Office TQP Assessment Report was prepared before the issuance of the TQP Assessment Criteria and Guidance document. However, it appears to address the intent, if not the letter of the document. The noted strengths and deficiencies are well documented.

ATTACHMENT TWO - Summary of Comments from Peer Review Checklists

Idaho Report Peer Reviewers Comments

- Overall, Idaho appears to have a thorough understanding of the strengths and weaknesses of their TQP. The issues and concerns raised seem to be consistent with those reported by other offices. Some of the issues that must be addressed at Idaho include identification of a tracking system for the TQP; better identification of training courses related to the TQP; identification of TQP participants by first line supervisors, establishing a link between vacancy announcements and position descriptions; developing a functional area for transportation management, and formally documenting continuing training needs.

  Idaho did a commendable and thorough job of reviewing not only the implementation of the TQP at ID, but also the TQP in general. Especially interesting is the fact that ID has chosen to include technical individuals in the TQP that are not responsible for a defense nuclear facility, a move Oakland is making, and with which the reviewers agree. A functional area for transportation manager needs to be developed. Transfer of TQP records between DOE sites should be formalized and recognized.

Nevada Report Peer Reviewers Comments

There are no major concerns with the Nevada TQP assessment report. When implemented, the four recommendations will enhance the TQP.

The Nevada Review Team did an excellent job in documenting the results of their review and met the requirements of the Implementation Plan. The outline of the report tracks the assessment guidance criteria and facilitated the peer evaluation. NV has indicated excellent communication between and among the participants, line managers and training for this program. This level of communication has allowed for a timely completion of the TQP by NV. Especially interesting is the fact that NV is reviewing mission-critical positions for inclusion into the updated TQP whether or not they are aligned with a Defense Nuclear Facility (DNF), a move Oakland is making, and with which the reviewers agree.

Oak Ridge Report Peer Reviewers Comments

The recommendations provided in the 1997 TQP self-assessment report need to be tracked and closed. Specific direction on TQP participant selections and guidance on acceptable equivalency or exception justifications needs to be developed.

Selection of TQP participants needs to be formalized.

ATTACHMENT TWO - Summary of Comments from Peer Review Checklists

Oakland Report Peer Reviewers Comments

The surveys taken to support Oakland's Phase I Assessment indicated that there was limited success of the TQP in improving safety-related job performance. It is not clear whether this was due to participants believing that the TQP was a paper exercise or that the program did not meet its intended purpose of improving technical capability of the participants. Also, the use of the original Functional Area Qualification Standards may not have been appropriate for the Oakland Operations Office specific job functions.

A detailed plan of action with milestones should be developed, and a focused review of TQP procedures and interviews should be used to validate conclusions.

It is not apparent from the report if the OAK Technical Qualification Program includes a feedback mechanism from the participants. This is a critical attribute of a successful and continuously improving program.

Ohio Report Peer Reviewers Comments

Ohio needs to establish site-specific competencies for all positions in the program. Roles and responsibilities need to be better understood. Performance standards need to be linked to the Technical Qualification Program.

Criteria 7.2 should have been reported as negative in the assessment. The justification statement implies that the actions will be taken, not that they have been. Additionally, periodic status reports do not constitute an effective evaluation of the program.

The justification for the criteria could be expanded to include how each was derived. In many instances, the justification appears to simply restate the criteria.

Richland Report Peer Reviewers Comments

The program does not yet appear to be fully institutionalized throughout the RL Operations Office. The FRAM, PDs, and TQP processes and procedures need to be better integrated across the organization. Other issues identified in the report include approach to program design, HR integration, inconsistencies in qualification standard development, SME and competency levels not adequately defined, consistency in TQP application, and continuing training and certification.

ATTACHMENT TWO - Summary of Comments from Peer Review Checklists

Rocky Flats Report Peer Reviewers Comments

- The Rocky Flats Report was completed more than a year before the issuance of the TQP Objectives and Criteria. A review against these Objectives and Criteria has identified several areas that may need to be addressed. A matrix is available that relates specific detailed comments based on these evaluation criteria.

- The report does not indicate if it was prepared by a group of personnel with qualifications and background that meet the intention of the Assessment Guidance or by a team that had representation from the Panel.

- Overall the report was very self-critical and complete. There were 17 recommendations made in the report, and RF Executive Summary did a good job identifying the critical actions needed to improve the qualification program. Some of the areas requiring improvement based on the review of the report are developing and implementing line management responsibility and accountability; updating and developing TQP policies and procedures; and addressing the skill mix weaknesses in important areas like D&D, QA, transportation, and engineering disciplines.

- The conclusions and recommendations in the report are consistent with the assessment results. One area for improvement not specifically identified in the report is line management responsibility and accountability. It is evident that the Training Department and the candidates themselves are left to implement the program.

Savannah River Report Peer Reviewers Comments

The report indicates that the major concerns to be addressed include: site-wide consistency of approach; site-wide senior management support; uniform application of equivalencies; developing an approach for integrating external certifications; resolving critical technical capability position issues as they relate to the TQP; addressing the use of separate competitive categories for positions other than facility reps, and developing a strategy for future training plans.

ATTACHMENT TWO - Summary of Comments from Peer Review Checklists

There should be a clear tie between the recommendations provided and the concerns identified. The recommendations do address the concerns, but it takes an effort on the part of the reviewer to make these connections.

The reviewers believe it is particularly noteworthy that SR employed the use of independent, qualified subject matter experts on the team. This adds significantly to the credibility of the report. Overall, SR is on the right path forward; although issues exist, they appear to be minor and fixable.