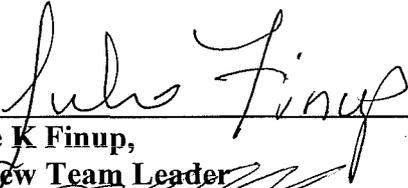


# Self Assessment Report Implementation of the Idaho Operations Office Technical Qualification Program (TQP)

April 2014



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## Executive Summary

The United States Department of Energy, Idaho Operations Office (DOE-ID) has successfully implemented a Technical Qualification Program (IDMS Office Document 02.OD.01 – ID Technical Qualification Program (TQP)) that produces highly qualified, technical individuals to execute oversight of site activities and support the Idaho National Laboratory (INL) site missions. DOE-ID hires competent people and, coupled with development and implementation of effective processes and procedures, maintains its work at a high level of quality. DOE-ID processes and procedures are contained in the DOE-ID Idaho Management System (IDMS). The DOE-ID TQP incorporates department wide General Technical Base and Functional Area Qualification Standards, as well as office/facility specific qualification standards, allowing for transportability of competencies across the Complex.

This TQP self-assessment was performed by a review team with extensive assessment experience. The team lead has participated on past TQP Accreditation reviews and team members are currently qualified in diverse TQP functional areas. The TQP records coordinator assisted on the review team. The assessment approach consisted of interviewing Managers, Division Directors, Team Leads, Qualifying Officials, and a representative sample of TQP participants, reviewing applicable records, reports, and IDMS documents, and observing continuing training activities. This report documents the results of the self-assessment.

The DOE-ID TQP meets the TQP accreditation criteria. The necessary processes are in place to ensure that DOE-ID technical personnel are trained and qualified to perform their assigned tasks. Several Areas for Improvement were identified during this self-assessment.

### Areas for Improvement

- Several of the current Office/Facility Specific Qualification Standard (OFSQS) are outdated and need to be updated.
- Some TQP personnel are performing oversight of functional areas they were not TQP qualified on, based on them having a nationally recognized certification (CSP).
- Some newer supervisors of TQP participants did not understand the TQP Qualifying Official process or the process for granting exemptions or equivalency to TQP competencies.

## Introduction

The United States Department of Energy, Idaho Operations Office (DOE-ID) has successfully implemented a Technical Qualification Program (IDMS Office Document 02.OD.01 – ID Technical Qualification Program (TQP)) that produces highly qualified, technical individuals to execute oversight of site activities and support the Idaho National Laboratory (INL) site missions. DOE-ID hires competent people and, coupled with development and implementation of effective processes and procedures, maintains its work at a high level of quality. These processes and procedures are contained in the DOE-ID Idaho Management System (IDMS). The DOE-ID TQP incorporates department-wide General Technical Base and Functional Area Qualification Standards, as well as office/facility specific qualification standards, allowing for transportability of competencies across the Complex.

## Scope and Methodology

This TQP self-assessment was performed by a review team with extensive assessment experience. The assessment approach consisted of interviewing Managers, Division Directors, Team Leads, Qualifying Officials, and a representative sample of TQP participants, reviewing applicable records, reports, and IDMS documents, and observing continuing training activities. The criterion for performing a TQP self-assessment provided in DOE O 426.1 was used as the methodology for completing this self-assessment. This report documents the results of the self-assessment.

## Results

### 1. TQP-1, Structured Program

**The program clearly identifies and documents the process used to demonstrate employee technical competence.**

*TQP-1.1: Senior Management is committed to the TQP.*

### **Discussion**

DOE-ID senior managers put a high regard on the technical competency of their work force and the TQP process. The DOE-ID Senior Managers attend the beginning of each quarterly FR/SME continuing training session and the Office Manager recognizes those personnel that have completed the TQP process. As identified in the DOE-ID Strategic Plan, DOE-ID will attain and maintain exceptional professionalism and technical capabilities in our people, stewardship over our programs, precision in our systems, and confidence in our talents and abilities to anticipate and exceed customer expectations. DOE-ID is responsible for effectively providing risk-informed oversight of mission-related work to help ensure the safety and protection of the worker, the public, and the environment. DOE-ID maintains a mix of highly skilled and trained Facility Representatives, Subject Matter Experts, and Safety System Oversight personnel to accomplish this work. As an added focus for ensure high quality of training for TQP personnel, the Deputy Manager for Operations Support reviews the lesson plans and provided recommendations for training provided at the FR/SME quarterly. DOE-ID IDMS document 01.OD.01, "Functions, Responsibilities, and Authorities," provides the institutional basis for the DOE-ID Office technical training and qualification process. 01.OD.01 requires Managers to ensure that personnel are technically trained, qualified, and competent to perform their duties. Interviews with various Deputy Managers (DM), Assistant Managers (AM), Division Directors (DD), Supervisors and Team Leads (TL) confirmed that the DOE-ID management team is knowledgeable of, and committed to the TQP. The appropriate levels of management are involved as required by the TQP program in the review and

approval of the various OFSQS. The appropriate levels of management are also involved in the final qualification process for their personnel assigned positions under the TQP. DOE-ID has issued a Workforce Analysis and Staffing Plan for CY-2013 in accordance with FTCP guidelines. The DOE-ID Senior Management Team is involved in developing the annual Workforce Analysis and Staffing Plan and in the review and approval of the Qualifying Officials List.

*(This Criteria is met)*

*TOP-1.2: At minimum, personnel providing management direction or oversight that could impact the safe operation of a defense nuclear facility have been identified as TQP participants.*

### **Discussion**

DOE-ID issued a Workforce Analysis and Staffing Plan for CY-2013 in accordance with Federal Technical Capability Panel (FTCP) guidelines. The staffing plan clearly defines the Technical Qualification Program (TQP) positions for defense nuclear facilities and the number of full time employees (FTEs) needed, including the number of Senior Technical Safety Managers (STSM). A review of the Idaho Management System (IDMS) document 01 OD 01, "Functions Responsibilities, and Authorities", was conducted; the TQP requirements associated identifying TQP participation are included in the Functions, Responsibilities, and Authorities Table, under Organizational Staffing and Competency. IDMS document, 02.OD.01, DOE-ID TQP describes the process that Managers use to designate personnel into the TQP. A Pegasus action is issued to each designee, which contains the qualification standards they must complete and time limit to complete the TQP Process. A review of Pegasus identified that personnel designated into the TQP in the last two years have/had a Pegasus Action assigned. A sampling of training records and the electronic TQP database determined that personnel responsible for oversight of nuclear facilities were assigned a General Technical Base (GTB) qualification, a Functional Area (FA) qualification and an office/facility specific qualification. DOE-ID maintains a database that contains all personnel designated into the TQP, including the qualification standards they are required to complete or have completed.

*(This Criteria is met)*

*TOP-1.3: IDPs, training plans, technical qualification records, or other related documents are updated to reflect the activities required for each individual to satisfy competencies.*

### **Discussion**

All DOE-ID TQP personnel are required to enter their IDP in the DOE Employee Self-Service System (ESS) and have it reviewed by their supervisor on an annual basis. The IDP is an effective tool for planning and developing short- and long-range training needs for completion of any required/desired training courses needed for initial qualification, requalification, professional development, or continuing training. DOE-ID develops a training plan each year to help with focusing on which courses to bring to Idaho that would benefit the most employees. The National Training Center also sends out a data call for TQP training courses to be taught at each site and HQ areas. Although the annual training plan is not focused on the TQP alone; the data used in the determination addresses TQP needs. A review of TQP documentation was performed. A Web page has been developed to support the TQP that contains the Functional Area and Office/Facility Specific Qualification Standards (OFSQS), Qualification Verification Cards, Qualifying Officials (QO) List, and a list of Functional Area Technical Leads (FATL). This Webpage is updated as new or revised standards are approved. Review of the OFSQS available on the TQP web page revealed that several OSFQS have not been updated for several years. This is a recurring issue from the 2011 TQP Self-Assessment. (Area for Improvement)

Issue/Area for Improvement

Several of the current Office/Facility Specific Qualification Standards (OFSQS) are outdated and need to be updated.

Recommendation

Management needs to engage the identified Functional Area Technical Leads (FATL) and implement a plan to update the OFSQS's. This is a recurring issue from the 2011 TQP Self- Assessment.

*(This Criteria is met)*

*TOP-1.4: A formal evaluation process (e.g., to select and train Qualifying Officials) is in place to objectively measure the technical competency of employees. The rigor of the evaluation process is commensurate with the responsibilities of the position.*

Discussion

Office Document 02.OD.01, ID Technical Qualification Program, Section 5 describes the evaluation process for TQP participants. It also contains appendices for each group of TQP participants: Subject Matter Technical Personnel (SMTP), Senior Technical Safety Managers (STSM), Facility Representatives (FR), and Safety System Oversight (SSO) personnel. Qualification Verification Cards (QVC) for each TQP participant are formatted to require the Qualifying Official (QO) to indicate which evaluation method was used for each competency. Formal classroom training was provided in 2013 to QO on the level of rigor needed for ensuring technical competency of employees. Interviews of QO personnel indicated that they understand their roles and responsibilities. Each of the appendices (STSM, SMTP, FR, SSO) contained in IDMS document 02.OD.01 provides the requirement for final qualification. The final qualification activities varies for each group of TQP participants but include activities such as comprehensive written exams, walkthroughs, and oral boards. Due to the critical nature of the STSM and FR positions, these final qualification activities are at an increased rigor.

*(This Criteria is met)*

## 2. TQP-2, Plans and Procedures

**Plans and/or procedures are developed and implemented to govern administration of the program.**

*TOP-2.1: Written procedures that adequately define the processes and requirements to implement the TQP are in place.*

Discussion:

The DOE-ID TQP Program is documented in 02.OD.01, "ID Technical Qualification Program." Document 02.OD.01 provides the necessary administrative controls for the TQP, and complies with the requirements specified in DOE O 426.1, change 1 and DOE O 360.1C.

*(This Criteria is met)*

*TOP-2.2: Roles and responsibilities for implementing the TQP are clearly defined and understood by all involved.*

Discussion

The DOE-ID Office Document 02.OD.01, "ID Technical Qualification Program" governs the TQP Program. 02.OD.01 clearly identifies the roles and responsibilities for all personnel involved in the TQP and provides for the effective administrative control of the TQP. This procedure, which is approved by the DOE-ID Operations Office Manager, defines the processes and requirements to implement the TQP at all levels throughout DOE-ID. Generally, personnel interviewed were knowledgeable of their TQP roles and responsibilities. The noted exception to this was newer supervisors of TQP participants did not understand the Qualifying Official process or their responsibility in the process for granting exemptions or equivalency. (Area for Improvement)

Issue/Area for Improvement

Some newer supervisors of TQP participants did not understand the TQP Qualifying Official process or their responsibility in the process for granting exemptions or equivalency to TQP competencies.

Recommendation

Work with human resources to develop a new supervisor briefing on TQP responsibilities dealing with supervisor roles for granting exemptions or equivalency to TQP competencies and the role of the QO.

*(This Criteria is met)*

*TQP-2.3: The procedures that govern implementation of the TQP are understood by all involved and are being implemented as written.*

**Discussion**

The DOE-ID document that governs the TQP Program is 02.OD.01, "ID Technical Qualification Program." 02.OD.01 provides for the effective administrative control of the TQP. This procedure clearly defines the processes and requirements to implement the TQP at all levels throughout DOE-ID. Generally, personnel interviewed were knowledgeable of their TQP roles and responsibilities. The noted exception to this was some of the newer supervisors. See the Discussion under TQP-3.3.

Issue/Area for Improvement

Same as those listed under TQP-3.3 Issue/Area for Improvement.

Recommendation

Same as those listed under TQP-3.3 Recommendation.

*(This Criteria is met)*

*TQP-2.4: A training and qualification records development and maintenance process is established for each employee in the TQP.*

**Discussion**

TQP training and qualification records are maintained at DOE-ID in two forms, paper and electronic. The DOE-ID Training Coordinator who was part of this review team was very knowledgeable of the TQP database and Electronic Document Management System (EDMS) records system. A review of the TQP training records ascertained that all personnel currently designated to be in the TQP had an active training file. A random review of the individual TQP training records demonstrated that the records were well organized and maintained. A review of the electronic databases, TQP and EDMS demonstrated that the databases are well maintained and an effective tool for tracking TQP qualification status.

*(This Criteria is met)*

### 3. TQP-3, Competency Requirements

**Competency requirements are clearly defined and consistent with applicable DOE standards for similar industrial occupations.**

*TQP-3.1: Competency requirements include clearly defined knowledge, skill, and ability elements.*

#### **Discussion**

02.OD.01, “*Idaho Operations Office (ID) Technical Qualification Program*,” defines the program requirements for the Facility Representative (FR), Senior Technical Safety Manager (STSM), Subject Matter Technical Personnel (SMTP), and Safety System Oversight (SSO) TQP positions. The DOE-ID TQP requires each participant to complete three Qualification Standards (The General Technical Base (GTB), a Functional Area (FA), and an Office/Facility Specific Qualification Standard (OFSQS)). The GTB and FA Qualification Standards (QS) are used as provided from HQ’s and define the skill level for each competency (familiarity, working, or demonstrate the skill). DOE-ID Qualification Verification Cards (QVC’s) are developed directly from the GTB and FA QS’s and include identified Mandatory Performance Activities. A sampling of the OFSQS indicates that there are several outdated references, not all have clear *knowledge, skill, and ability elements* and some have not been updated with the 2008 core competencies. (Area for Improvement)

#### **Issue/Area for Improvement**

See TQP-1.3

*(This Criteria is met)*

*TQP-3.2: Recognized experts help establish competency requirements.*

#### **Discussion**

A review of the DOE Wide Functional Area Qualification Standards and the current FTCP Standards Spreadsheet revealed that, DOE-ID has Subject Matter Experts that participate in the development and review of many of the current GTB and Functional Area standards. 02. OD.01 provides the process used to develop competencies for the Office/Facility Specific Qualification Standards. DOE-ID has designated Functional Area Technical Leads (FATL) for all of the current Office/Facility Specific Qualification Standards.

*(This Criteria is met)*

*TQP-3.3: Related professional accreditation requirements are considered in the program as applicable.*

#### **Discussion**

02.OD.01, “*Idaho Operations Office (ID) Technical Qualification Program*,” defines the program requirements for the Facility Representative (FR), Senior Technical Safety Manager (STSM), Subject Matter Technical Personnel (SMTP), and Safety System Oversight (SSO) TQP positions. The program discusses the use of equivalencies, based on education and experience. Professional certifications recommended, are identified in Qualification Standards, Vacancy Announcements and Position Descriptions and are reviewed as part of the recruitment and hiring process. During discussions with a Division Director and one of his supervisor’s, it was identified that some TQP personnel were performing oversight of functional areas they were not TQP qualified on, based on a determination that

having a nationally recognized certification (CSP) was sufficient. A gap analysis was not performed and TQP equivalency was not requested for these personnel. (Area for improvement)

#### Issue/Area for Improvement

Some TQP personnel are performing oversight of functional areas they were not TQP qualified on, based on a determination that having a nationally recognized certification (CSP) was sufficient.

#### Recommendation

Perform a gap analysis of the applicable TQP FA/OFSQS's against the duties of the personnel that are performing oversight based on their CSP certification to determine TQP competencies and document equivalency.

#### ***(This Criteria is met)***

*TOP-3.4: Competency requirements are identified in the areas listed below. (Note: this does not imply that three separate documents are required.)*

- *Basic Technical Knowledge. Competency in areas such as radiation protection, occupational safety, chemical safety, nuclear safety, and environmental regulations.*
- *Technical Discipline Competency. Competency in a technical discipline (e.g., mechanical engineering, chemical engineering) that can be demonstrated by education, professional accreditation, examination, or on-the-job performance.*
- *Position Knowledge, Skills, and Abilities. Competencies specific to the position, facility, or program and the office.*

#### **Discussion**

02.OD.01, "Idaho Operations Office (ID) Technical Qualification Program," defines the program requirements for the Facility Representative (FR), Senior Technical Safety Manager (STSM), Subject Matter Technical Personnel (SMTP), and Safety System Oversight (SSO) TQP positions.

The DOE-ID TQP requires each participant to complete a General Technical Base, a Functional Area, and an office facility specific standard. Each Functional Area standard defines the skill level for each competency. A Web page is maintained for the TQP that contains the implementing document, Qualifying Officials (QO) List, Qualification Standards and verification forms, TQP Forms, a listing of the Functional Area Technical Leads, and guidance for completing the process. The QO list has been recently updated to ensure an appropriate number of qualifying officials are available to the workforce.

#### ***(This Criteria is met)***

#### **4. TQP-4, Qualification Tailored to Work Activities**

**The program identifies unique Department- and position-specific work activities and specifies the knowledge and skills necessary to accomplish that work.**

*TOP-4.1: An analysis has been performed to identify the related knowledge, skill, and ability elements to accomplish the duties and responsibilities for each TQP functional area or position.*

#### **Discussion**

Personnel from DOE-ID have participated in the development of many of the Headquarters Functional Area Qualification Standards. Job Task Analysis for each of the FA qualification standards is completed as part of the update. The analysis for these Functional Area Qualification Standards is performed at a Working Group Level for the specific Standard. Several DOE-ID SMEs are part of the working groups that help develop the JTAs and FA Qualification Standards. DOE-ID developed 02.PD.01, *Idaho Operations Office (ID) Process for Employee Competency*, which describes the process used to ensure

employee competency to perform their job function. A suite of Work Instructions have been developed to implement 02.PD.01 including IDMS document 02.OD.01 DOE-ID TQP. The OFSQS is based on JTAs.

*(This Criteria is met)*

*TQP-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. The program supports the mission needs of the office.*

### **Discussion**

The DOE-ID TQP requires each participant to complete three Qualification Standards, (The General Technical Base, a Functional Area, and an office facility specific standard). Each Functional Area standard defines the skill level for each competency (familiarity, working, or demonstrate the skill). These functional area standards contain competencies on rules, regulations, codes, standards, and guides necessary to the position. The office/facility specific standards contain competencies to enhance those of the functional area that pertain to the mission needs of the office. Several of the Office/Facility Specific Qualification Standards continue to contain outdated references. Any changes to rules, regulations, codes, standards, guides and IDMS documents are included as part of the quarterly FR/SME continuing training.

As identified in the DOE-ID Strategic Plan, DOE-ID will attain and maintain exceptional professionalism and technical capabilities in our people, stewardship over our programs, precision in our systems, and confidence in our talents and abilities to anticipate and exceed customer expectations. DOE-ID is responsible for effectively providing risk-informed oversight of mission-related work to help ensure the safety and protection of the worker, the public, and the environment. DOE-ID maintains a mix of highly skilled and trained Facility Representatives, Subject Matter Experts, and Safety System Oversight personnel to accomplish this work. In January 2014, DOE-ID completed an Annual Workforce Analysis and Staffing Plan Report in accordance with FTCP guidelines. The staffing plan clearly defines the TQP positions needed to support the safety oversight function of the office and the number of full time employees (FTEs) needed. During interviews with some TQP personnel, it was stated that performance plans are tied to the DOE-ID Strategic Plan and completion of TQP activities was part of the performance plan.

*(This Criteria is met)*

## **5. TQP-5, Credit for Existing Technical Qualification Programs.**

**The program is structured to allow credit, where appropriate, for other Technical Qualification Program accomplishments.**

*TQP-5.1: Credit (equivalency) is granted for previous training, education, experience, and completion of related technical qualification programs, where applicable.*

### **Discussion**

The use of equivalencies is described in DOE-ID Office document 02 OD 01. Qualification Verification Forms are developed to include proper approval of equivalencies. Records were reviewed for recent TQP personnel and determined that equivalencies were being granted for previous qualifications where appropriate. The process is being properly applied.

*(This Criteria is met)*

*TQP-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. Equivalencies are formally validated, approved, and documented.*

### **Discussion**

The use of equivalencies is described in DOE-ID Office document 02 OD 01. Qualification Verification Forms are developed to include proper approval of equivalencies and requires including documentation with the Qualification Verification Form. A review of TQP training records indicated that this process was being adequately implemented.

*(This Criteria is met)*

## **6. TQP-6, Transportability**

**Competency requirements identified as applying throughout the Department are transferable.**

*TQP-6.1: The program includes all competencies that have been identified as applying throughout the Department.*

### **Discussion**

The use of the department wide GTB and FA qualification standards is described in DOE-ID Office Document 02.OD.01, DOE-ID Technical Qualification Program. This allows for transportability across the department. DOE-ID personnel have participated in working groups or are champions for several of the department wide qualification standards. When personnel transfer to another DOE organization, TQP records are transmitted to their new organization to alleviate the need to duplicate the TQP activities already accomplished. A discussion with one recent person that transferred to Hanford showed that DOE-ID has been successful in providing TQP transportability between field offices.

*(This Criteria is met)*

*TQP-6.2: Formal documentation of the completion of Department-wide competencies is maintained in a manner that allows for easy transferability.*

### **Discussion**

DOE-ID maintains both hardcopy and electronic copies of training records for all TQP participants. These files include the Qualification Verification Records for each Qualification Standard completed by each participant. A DOE-ID database has also been developed to track completion of required qualification standards by personnel assigned jobs that require TQP participation as well as those that are voluntarily participating. A review of both the database and the hardcopy records was performed during this review and both were adequate to be used for transferability of records.

*(This Criteria is met)*

*TQP-6.3: The TQP is integrated with personnel-related activities, such as position descriptions, vacancy announcements, recruiting, and performance appraisals.*

### **Discussion**

DOE-ID has integrated the TQP into its personnel-related activities. A sample of position descriptions and vacancy announcements were reviewed as part of this assessment. It was noted that vacancy announcements and position descriptions were integrated with the TQP process. From interviews, it was determined that TQP activities were being included in the performance planning process and Individual Development Planning Process.

*(This Criteria is met)*

## 7. TQP-7, Measurable

**The program contains sufficient rigor to demonstrate compliance to the requirements.**

TQP-7.1: *The technical competency of personnel who have completed the requirements of the TQP is adequate and appropriate.*

### **Discussion**

The rigor of the DOE-ID training and qualification process applies to the initial qualification for all DOE-ID TQP participants. The FR program at DOE-ID contains the most rigor, based on the FRs oversight requirements. FR's attend quarterly training sessions and requalify every five years. The STSM program contains the next level of rigor and periodic continuing training is provided and tracked for these positions. The SSO program does not contain the same rigor as those for the STSM and FR positions. The SMTP program contains the least level of rigor and does not have a requalification program. FR's, SSO's, and SMTP are invited to participate in the FR/SME Quarterly training which includes discussions on updated rules, regulations, standards, guides, orders, and IDMS documents. Through interviews with personnel who recently completed the TQP process, and observations of oral boards it was determined that the technical competence of TQP participants was adequate and appropriate.

*(This Criteria is met)*

TQP-7.2: *The program allows for continuous feedback and periodic evaluation to ensure that it meets the needs of the Department and the missions of the office.*

### **Discussion**

As part of the FR/SME continuing training, a feedback form has been implemented. The IDP process also has a feedback element to evaluate the effectiveness of the instructor and the class content for any class/seminar/activity that has been attended by any DOE-ID personnel. A feedback mechanism within IDMS allows for direct feedback for improvements to the DOE-ID TQP procedure. A self assessment of the TQP program is scheduled periodically to gain additional feedback for improvements to the implementation of the process. Feedback on the level of checkouts being provided by qualifying officials was used to update the most recent QO training and the feedback on the training was very positive.

*(This Criteria is met)*

TQP-7.3: *The TQP provides for continuing training.*

### **Discussion**

A continuing training program has been implemented for the TQP participants at DOE-ID. FR/SME is provided one full day a quarter that covers topics that are applicable to all groups. All FRs, SSOs and SMEs are invited to attend this training. TQP qualified FR's, SSO's and SME's provide training during the quarterly continuing training covering their areas of expertise. The STSM Training Coordinator provides a periodic study guide and exam to all personnel that have completed the STSM Qualification Standard and those is STSM initial training. SCWE training was given to all STSMs during 2013. The STSM study guide and exam is also provided to the FRs as continuing training. The EM Team Lead for Nuclear Safety/SSO has provided each of the EM Nuclear Safety Specialist/SSO with a periodic study assignment and exam covering the standards, regulations, and directives specific to a nuclear safety

specialist/SSO. The NE SSOs attend the FR/SME quarterly training and do not have a secondary continuing training program. DOE-ID also uses the IDP system to document continuing training/professional development for its personnel.

*(This Criteria is met)*