



U.S. Department of Energy
Federal Technical Capability Program
Calendar Years 2009-2010
Biennial Report

November 2011

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Executive Summary

The U.S. Department of Energy (DOE) is committed to ensuring employees are trained and technically capable of performing their duties. In pursuit of this objective, the Secretary of Energy issued DOE Order 426.1, Federal Technical Capability, to institutionalize the Federal Technical Capability Program (FTCP). DOE P 426.1, *Federal Technical Capability Policy for Defense Nuclear Facilities*, dated 12-10-98, was incorporated into DOE O 426.1 in September 2011.

The Deputy Secretary established the Federal Technical Capability Panel (Panel) to oversee the implementation of the FTCP, recognizing that corporate leadership and line management ownership are essential to successful program implementation. The Panel consists of senior managers designated as Agents to represent DOE Headquarters (HQ) and Field Elements with defense nuclear facility responsibilities, including the National Nuclear Security Administration (NNSA). This Biennial Report summarizes the actions taken over the past two years to ensure organizations maintain the critical technical capabilities needed for the safe operation of defense nuclear facilities.

The state of DOE/NNSA's technical capability and capacity are improving. It is important that DOE/NNSA senior management continue to emphasize the importance of achieving and maintaining individual qualification currency in this time of reduced resources. DOE/NNSA Technical Qualification remained at about 1700 technical capabilities, with an approximate 10% increase in capabilities for which personnel are qualified.



Karen L. Boardman, Chairperson
Federal Technical Capability Panel

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1.0 Purpose and Scope

The Federal Technical Capability Panel (Panel) is responsible for managing the US DOE Federal Technical Capability Program (FTCP), which includes overseeing the DOE/NNSA Technical Qualification Program (TQP). The TQP includes the Safety System Oversight (SSO) Program; the Facility Representative (FR) Program; and the Senior Technical Safety Manager (STSM) Program and other critical technical skills, such as nuclear safety, nuclear explosive safety, electrical systems and safety oversight, safety software quality assurance, civil/structural engineering, fire protection engineering and criticality safety. As part of its ongoing mission, the Panel ensures Offices conduct annual workforce analyses and develop staffing plans that identify those critical technical capabilities and positions needed to ensure safe operations at defense nuclear facilities.

2.0 2009-2010 Accomplishments

The DOE is committed to ensuring that employees are well qualified and technically capable of performing their duties. In pursuit of this objective, the Federal Technical Capability Program was established with the recognition that corporate leadership and line management ownership are essential to successfully implementing a program to recruit, develop, deploy, and retain technical capability at defense nuclear facilities. The Panel consists of senior personnel, designated as Agents, to represent DOE Headquarters and Field Elements with defense nuclear facility responsibilities including the NNSA. The Panel Chairperson reports to the Deputy Secretary and is responsible for overseeing the TQP. The DOE/NNSA sites conduct periodic self-assessments of the effectiveness of the TQP using internal and independent experts, and provide recommendations to senior Department officials regarding DOE technical capabilities.

The Department's vision described in the Implementation Plan in response to Defense Nuclear Facilities Safety Board (DNFSB or Board) Recommendation 2004-1, *Oversight of Complex, High-Hazard Nuclear Operations*, (2004-1 IP) is for its technical personnel to be recognized among all federal agencies for the excellence of its federal staff. Commitment 13 of that Implementation Plan states that the Panel will "...develop corrective actions to improve recruiting, developing, training, qualifying, maintaining proficiency, and retaining technical personnel, as well as FTCP effectiveness. The Corrective Action Plan (CAP) included a prioritized list of key positions that should be filled to enhance safety." The DOE FTCP CAP actions were completed in March 2009 and were provided to the DNFSB.

Enhancements to technical capabilities as a result of FTCP efforts in 2009 included:

- **Workforce Analysis.** The Workforce Analysis for NNSA, Environmental Management (EM), Science (SC), Office of Health, Safety and Security (HSS), and other Headquarters offices was updated. Staffing plans in NNSA, EM, SC, and HSS detailing actions to be taken were developed. A summary of the results is presented in Section 3.0.
- **Functional Area Qualification Standards (FAQS).** Criticality Safety, Safeguard and Security, Chemical Processing and Facility Representative FAQS' were updated and reissued. A new FAQS for Safeguards and Security General Technical Base Qualification and NNSA Packaging Certification Engineer were approved. A review of all the FAQS that are five or more years old was completed, and updates prepared where needed. Additional details are provided in Section 4.0.
- **Safety System Oversight (SSO).** Work continued on consideration of a new technical standard for the SSO program, and it was determined that SSO-specific competencies should be accomplished in the Site Specific Qualification Standards. Additional details are provided in Section 5.0.
- **Accreditation Process.** No additional sites were accredited in 2009. The NNSA Y-12 Site Office (YSO) was re-accredited in 2010, with one other NNSA site (Nevada Site Office) scheduled for accreditation. Additional information is included in Section 7.0.
- **Enhanced National Training Center Utilization.** The NTC has continued to provide critical safety and safeguards/security training through 2009-2010, including Nuclear Executive Leadership Training (NELT), Senior Technical Safety Manager Overview and Applications Training, and Safety System Oversight Training. Additional details are provided in Section 8.0.
- **Federal Technical Capability Program Manual Update.** In November 2009, DOE Order 426.1, *Federal Technical Capability*, was issued to accommodate changes identified by the FTCP and Board Recommendation 2004-1 activities. Additional details are provided in Section 9.0.
- **Continued Enhancement of the Facility Representative Program.** The Department continued its efforts to improve Facility Representative staffing and training, including expanding the DOE FR

Workshop to include a DOE SSO Workshop and Readiness Review training in the scope of the 2010 DOE FR Workshop. The FR FAQs was also updated along with DOE-STD-1063, Facility Representatives. Details of these efforts are provided in Section 10.0.

In 2009, two meetings of the FTCP agents were conducted on January 27, 2009 and August 25, 2009. In 2010, two meetings were conducted on March 30, 2010 and September 14, 2010. FTCP Conference Calls are held monthly around these biannual FTCP Face-to-Face Meetings. The meeting agendas are included in Appendix A. Additional information is available of the FTCP webpage at <http://www.hss.doe.gov/deprep/ftcp/meeting.asp>.

3.0 Staffing and Qualifications

At the end of December 2009, a total of 1,694 TQP capabilities were required across the DOE/NNSA complex, for which 1,118 were staffed with fully qualified personnel, 416 were staffed by persons on schedule to complete qualification/requalification and 17 were staffed with personnel overdue to complete qualification/requalification. 160 capabilities did not have staffing available at the end of the year. The actions needed/being taken to resolve these staffing shortfalls are identified in the quarterly report.

At the end of December 2010, a total of 1,716 TQP capabilities were required across the DOE/NNSA complex, for which 1,231 were staffed with fully qualified personnel, 347 were staffed by persons on schedule to complete qualification/requalification and 44 were staffed with personnel overdue to complete qualification/requalification. 138 capabilities did not have staffing available at the end of the year.

The follow information is included in the Quarterly Reports:

3.1 Number of Capabilities Needed

This column defines the number of required technical capabilities (rather than the number of personnel required, since more than one part-time capability can be accomplished by one person). It complements the annual work force analysis.

3.2 Number of Capabilities Staffed by Onboard, Fully Qualified Personnel

This column identifies the number of required technical capabilities being met by fully qualified personnel.

3.3 Number of Capabilities for Which Onboard Staff are Engaged in Initial Qualification, or Are Overdue Either for Initial Qualification or Requalification

This column identifies the number of capabilities for which the required personnel are onboard, but are not presently fully qualified.

3.4 Number of Capabilities for Which Onboard Staff Are Overdue to Complete Initial Qualification or Requalification

This column is a subset of Column E. It identifies the number of onboard personnel who overdue to complete initial qualification or requalification.

3.5 Staffing Shortfall

This column identifies the number of capabilities for which the required personnel are **not** onboard. If this column is other than zero, an explanation of what action is being taken (e.g. recruitment, posting, etc.) or needs to be taken (e.g. funding required) to correct the staffing shortfall is provided.

As sample quarterly report is shown on the next page. In addition to the overall TQP data shown, the actual report includes similar data for STSMs, FRs, SSO, and Nuclear Safety Specialists.

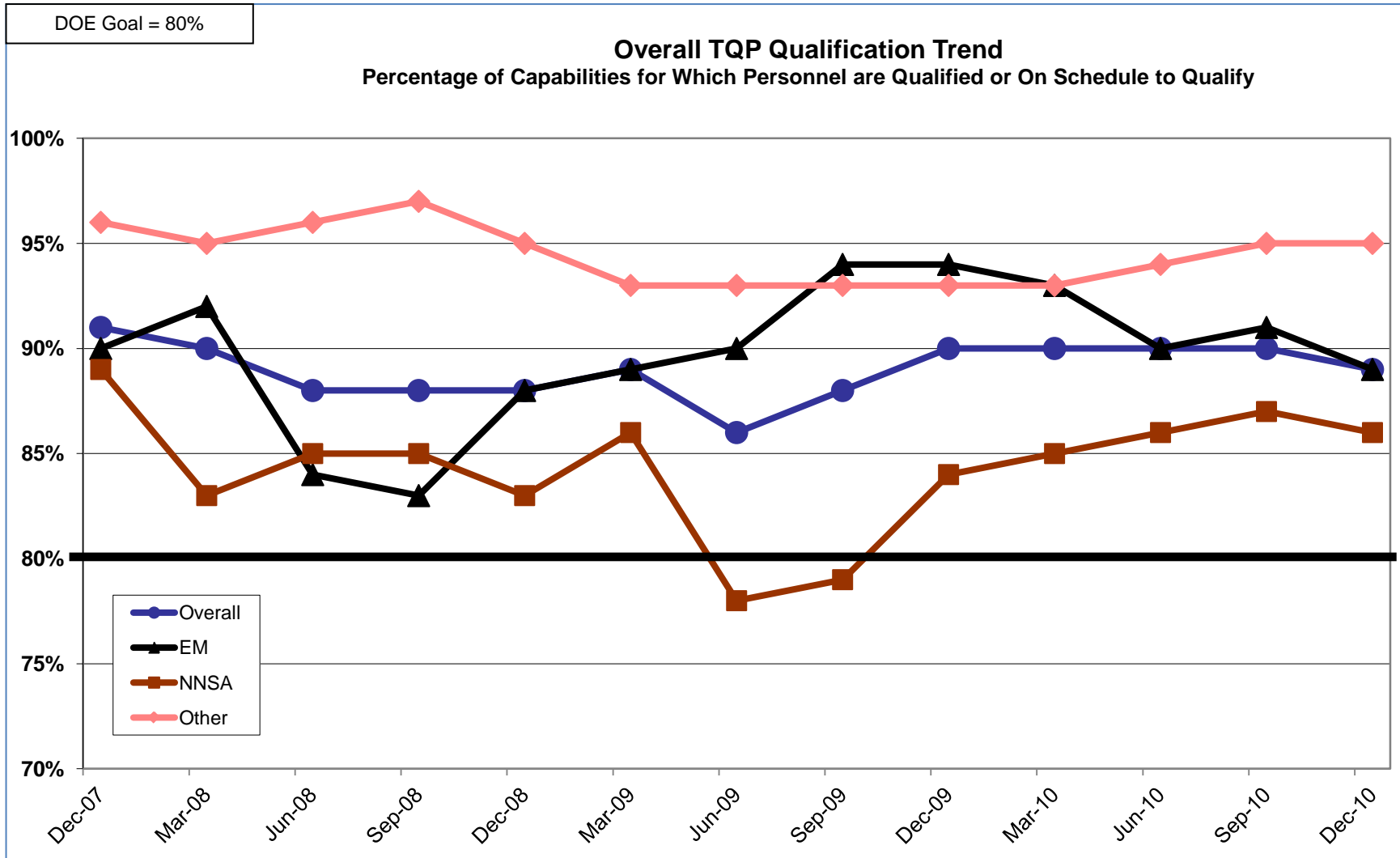
During 2009-2010, several challenges to maintaining adequate technical staffing across the complex continued to exist. These include both acute conditions, such as unit reorganizations, and chronic conditions, including remote site locations (e.g., Carlsbad), retirements, and lack of long-term employment security (e.g., ARRA, for clean-up projects and new construction projects at several sites). The anticipated increase in commercial nuclear plant design and construction will likely create an additional drain on specialized expertise, such as STSMs, nuclear safety specialists, fire protection engineers, and criticality safety personnel.

Selected data from the FY 2011 First Quarter Quarterly Report is shown on the following pages.

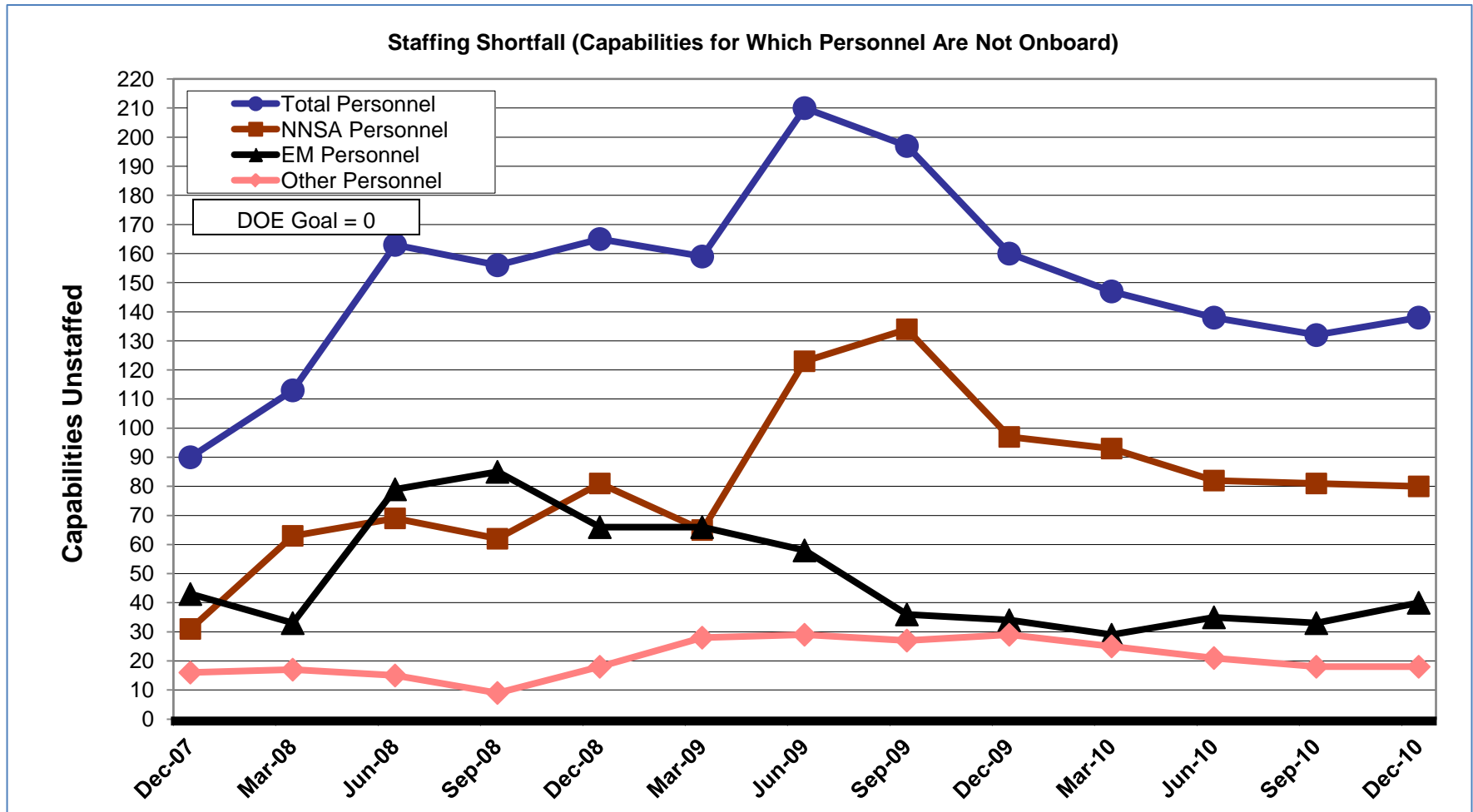
Sample Revised Quarterly Report Data Table

Status of Qualifications in the Technical Qualification Program (TQP)										
December 31, 2010										
Update Frequency: Quarterly										
OVERALL TQP QUALIFICATIONS										
Office	Number of Capabilities Needed (C)	Number of Capabilities Staffed by Onboard, Fully Qualified Personnel (D)	Number of Capabilities for Which Onboard Staff are Engaged in Initial Qualification, or are Overdue Either for Initial Qualification or Requalification (Includes Column F) (E)	Number of Capabilities for Which Onboard Staff are Overdue to Complete Initial Qualification or Requalification (F)	Staffing Shortfall, i.e. Number of Capabilities for Which Personnel are Not Onboard =C-(D+E)	Percentage of Capabilities for Which Staff are Onboard =(D+E)/C	Percentage of Capabilities Staffed by Onboard, Fully Qualified Personnel =D/C	Percentage of Required Capabilities That Are Either Fully Qualified or on Schedule for Qualification =(D+E)-F/C	Comments	
National Nuclear Security Administration (NNSA)										
Los Alamos Site Office	LASO	114	78	20	1	16	86%	68%	85%	LASO NNSA FTE Count has been reduced to 107 FTEs.
Livermore Site Office	LSO	58	39	15	0	4	93%	67%	93%	Internal candidate hired for Deputy Manager, creates a vacancy for an Assistant Manager. 1 Facility Representative (FR) vacancy is on HOLD. 1 FR and 1 Industrial Hygiene position will be filled through the Future Leader. Program staff currently onboard.
Nevada Site Office	NSO	74	54	17	0	3	96%	73%	96%	NSO plans to fill critical positions by the end of 3 qtr FY11.
Pantex Site Office	PXSO	66	48	14	4	4	94%	73%	88%	7 Safeguards & Security Personnel are requaling to DOE STD- 1171.
Savannah River Site Office	SRSO	18	16	2	0	0	100%	89%	100%	
Sandia Site Office	SSO	46	30	9	0	7	85%	65%	85%	Aviation Safety, Civil Structural Engineering, and Electrical Systems capabilities, as well as additional Environmental Compliance, Criticality Safety, and Emergency Management capabilities, provided through NNSA/SC matrix support (7 capabilities).
Y-12 Site Office	YSO	89	73	9	1	7	92%	82%	91%	Vacancies due to resignations and transfers; working to backfill and evaluate staffing assignments.
NNSA Headquarters	NA-HQ	161	81	42	13	38	76%	50%	68%	
NNSA Service Center	NA-SC	57	45	11	0	1	98%	79%	98%	Hiring 1 OSH TQP Participant.
NNSA Totals		683	464	139	19	80	88%	68%	86%	
Environmental Management (EM)										
Carlsbad Field Office	CBFO	16	14	2	0	0	100%	88%	100%	STSM personnel, CBFO Manager moved to SRS and ABSTA retired in 1st Quarter FY11; Deputy Manager retired in 4th Quarter FY10. Acting CBFO Manager and Acting Deputy Manager in final phase of requalification. New ABSTA candidate engaged in initial STSM qualification.
CBC and OSS&SP Field Personnel	CBC & OSSSP	31	18	13	0	0	100%	58%	100%	EMCBC, EMCBC Cadre and field personnel at BNL, Denver, MOAB, Oakland, SPRU, and WVDP.
Office of River Protection	ORP	100	86	14	0	0	100%	86%	100%	1 lost to retirement.
Portsmouth/Paducah Project Office	PPPO	25	14	11	0	0	100%	56%	100%	PPPO has established obtaining FPD qualifications as a priority over TQP certification.
Richland Operations Office	RL	78	59	14	10	5	94%	76%	81%	Shortfall: Industrial Hygienist, Occupational Safety, Mechanical SSO, Criticality Safety, and Emergency Management.
Savannah River Ops. Office	SR	231	161	36	2	34	85%	70%	84%	Reduced FTE ceiling significantly impacts ability to eliminate the shortfall at present. Relying on internal/external staffing actions to reduce shortfall. Both delinquencies are near completion, having obtained all competency signatures and needing only a final signature on one and a comprehensive exam on the other.
EM Headquarters	EM-HQ	79	35	43	7	1	99%	44%	90%	EM HQs is still under a continued process of reassignments and/or details, across the headquarters offices and some TQP functional area qualifications are being affected and/or changed.
EM Totals		560	387	133	19	40	93%	69%	89%	
Others										
Chief of Nuclear Safety	CNS	9	6	3	2	0	100%	67%	78%	Of the total CNS staff of nine, six are required to qualify STSM and one is required to qualify Nuclear Safety Specialist and the two remaining staff members identified as SMEs for QA (and not liable for STSM). Additionally, all but the CNS and NSS staff are required to qualify HQ SSO.
Health, Safety and Security	HSS	116	85	26	0	5	96%	73%	96%	HS-60 has 2 unfilled NSS positions, 1 unfilled Occupational Safety position and 1 unfilled Physical Security Systems position; recruitment efforts are underway. FR position currently vacant in HS-50 due to retirement; HS-50 plans to fill position.
Idaho Operations Office	NE-ID	134	130	2	0	2	99%	97%	99%	AM FMDDP acting as DM ICP (Position posted).
Oak Ridge Office	OR	167	127	29	1	11	93%	76%	93%	Recruiting to fill authorized vacancies.
Office of Science - HQ	SC-HQ	3	1	2	1	0	100%	33%	67%	
Chicago - (SC)	SC-CH	38	25	13	2	0	100%	66%	95%	
Pacific Northwest Site Office (SC)	PNSO	6	6	0	0	0	100%	100%	100%	1 NSS and 3 additional SSO support provided by the SC Integrated Support Center.
Others Totals		473	380	75	6	18	96%	80%	95%	
DOE Total		1716	1231	347	44	138	92%	72%	89%	
DOE Goals		-	-	-	-	-	-	-	80%	

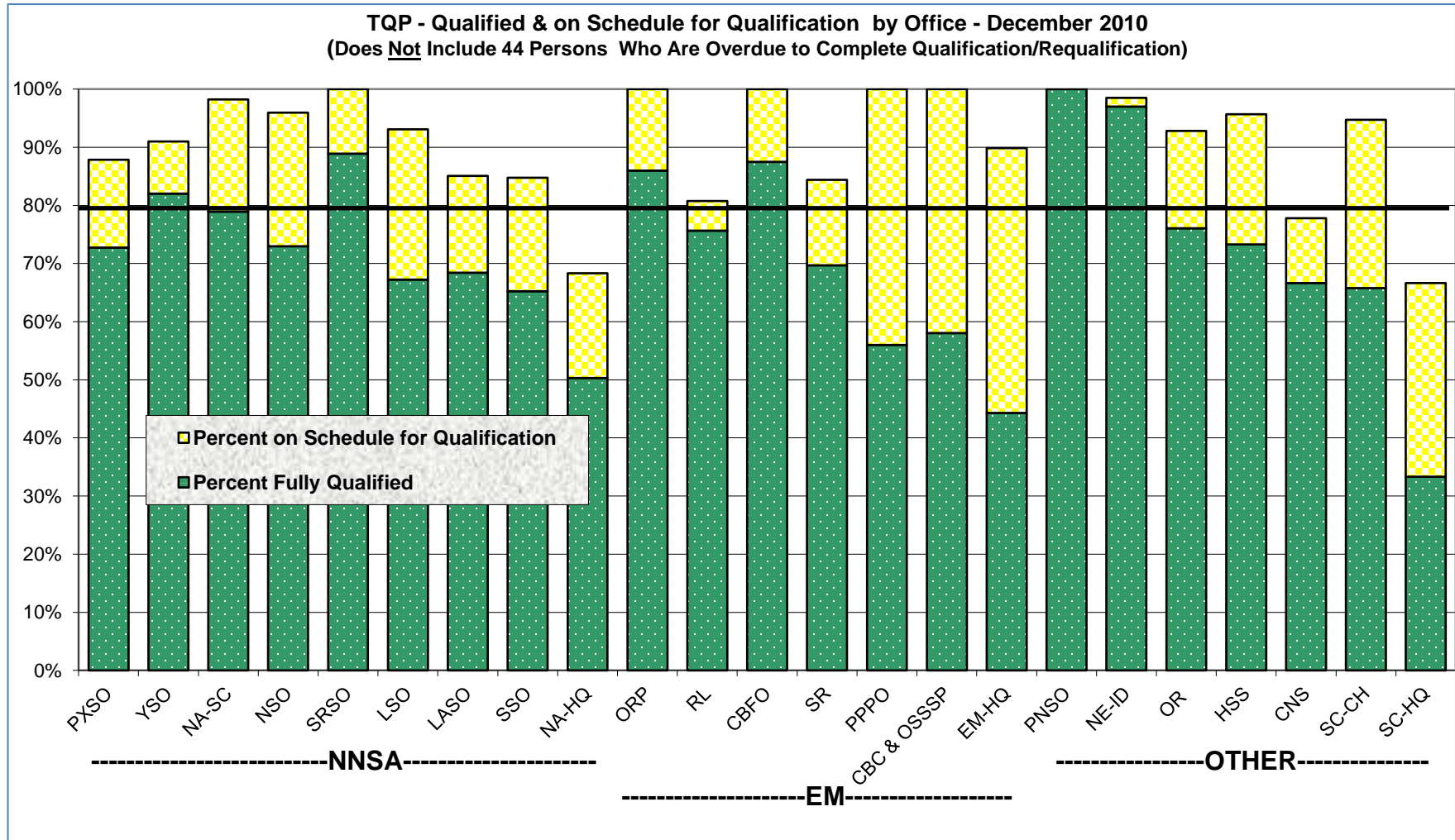
Sample Revised Quarterly Report Overall Qualification Trend Chart



Sample Revised Quarterly Report Overall Qualification Trend Chart



Sample Revised Quarterly Report Office Staffing Bar Chart



4.0 Functional Area Qualification Standards

The Department's response to Commitment 11 in the DOE 2004-1 Revision 1 Implementation Plan (IP) included the task of developing a process for identifying highly qualified and experienced individuals that would assist the Department in improving its overall technical capabilities. To meet this commitment, DOE selected fifteen highly-qualified and experienced personnel to serve as DOE sponsors and alternate sponsors for the five following functional areas: Civil/Structural Engineering (DOE-STD-1182-2004), Criticality Safety (DOE-STD-1173-2003), Fire Protection Engineering (DOE-STD-1137-2000), Nuclear Explosive Safety (DOE-STD-1185-2004) and Safety Software Quality Assurance (DOE-STD-1172-2003). This activity completed the actions identified under Commitment 11. The FTCP website contains a current list of all FAQs sponsors and recognized experts.

Commitment 13 in the DOE 2004-1 Revision 1 IP was the FTCP Corrective Action Plan, and included a requirement to develop a process for identifying Departmental Champions for the core science and engineering FAQs disciplines. A further requirement was to establish a formal process for developing and revising the FAQ Standards, and for ensuring they contain appropriate and adequate qualification and re-qualification requirements.

In 2008, in response to changes in the DOE directives program, the process to revise DOE Manual 426.1-1B (Federal Technical Capability Manual) to O 426.1X (Federal Technical Capability Order) was begun, with a Basis of Requirements document that explains the reason for each requirement that is included in the Order. This new Order includes an updated section that describes a systematic approach for the process of developing and revising the FAQ Standards to include appropriate qualification and re-qualification requirements. In 2009, DOE O 426.1 was issued.

In 2009, the Criticality Safety, NNSA Package Certification Engineer, Safeguards and Security, and Safeguards and Security General Technical Base FAQs were issued. In 2010, all FAQs that were older than five years were reviewed, evaluated and either recertified as still adequate or targeted for revision by the FTCP Technical Standards Manager in HS-10. As a result of this activity, a number of FAQs, including those for Facility Representatives and Safety Software Quality Assurance were revised and re-issued. A new Confinement Ventilation FAQs is in process of being written.

5.0 Safety System Oversight

A Working Group led by the Office of Health, Safety and Security and the Federal Technical Capability Panel with representatives from the Chief of Nuclear Safety (CNS), the Chief of Defense Nuclear Safety (CDNS), and several field organizations performed an analysis of Safety System Oversight (SSO) programs

at the Department of Energy to look for program improvements. The Working Group met with SSO supervisors and staff from across the DOE complex during the SSO annual workshop to discuss the draft report and, in particular, its conclusions and recommendations.

The Working Group concluded that SSO programs are vital to DOE's oversight of contractors' safety performance and for assuring the safety of DOE nuclear facilities. Site SSO programs are focused on ensuring that the contractor's system engineers are in place and functioning to maintain nuclear facility safety systems capable of preventing and/or mitigating potential accidents. Almost all of the site SSO programs were very mature; however, maintaining adequate staffing was a challenge for many sites. The Working Group found that there were variations in methods for implementing SSO programs, most importantly in the use of a facility-based or system-based approach. The program leaders provided valid reasons for the variations, but further analysis and better documentation of the rationale for the approaches were deemed to be appropriate as the SSO community developed additional program guidance. It was clear from this analysis that the SSO function has to be well integrated with other oversight personnel, such as the Facility Representatives, nuclear safety specialists, and subject matter experts to operate effectively.

The Working Group determined that that SSO programs could be improved complex-wide through clearer program requirements in DOE directives, better support for coordination and sharing of best practices among DOE sites, and better tools for program leaders to develop staffing and qualification plans. The recommendations identified in this report do not call for a major restructuring of the SSO program, but rather some incremental improvements that will support all SSO programs. HSS and the FTCP plan on working with the CDNS, CNS and DOE line management to implement the program improvements listed below. The first step was to establish an SSO program committee/working group to support implementation of these recommendations. For each of the recommendations below, the lead organization is identified and the status is reported:

- HSS: Establish an SSO program committee/working group to increase sharing of best practices and develop products to support SSO programs.
 - An SSO Steering Committee Charter was developed and circulated for comment and refinement.
 - A Headquarters program manager was assigned to coordinate further efforts.
 - The Safety System Oversight Steering Committee was established and the members approved the Charter in August 2010.

- A dedicated SSO Web site was developed and deployed to support the SSO community.
(<http://www.hss.doe.gov/deprep/ftcp/SSO/SSO-Program.html>)
- An annual SSO Workshop is conducted along with the annual Facility Representative workshop.
- A new SSO Annual Award was developed to recognize superior SSO performance. Field elements nominated candidates, and a cross-cutting panel of senior DOE managers selected winners for 2009 and 2010. Nominees and winners received letters from the Secretary of Energy and the winners met in person with the Secretary.
- HSS: Revise the appropriate directives to include requirements for DOE SSO programs.
 - In DOE O 420.1, *Facility Safety*, SSO program provisions were added to the Order.
- HSS: Coordinate development of a DOE Technical Standard that defines the SSO program similar to the Standard that defines the facility representative program and provides guidance for implementing an effective program.
 - A draft technical standard was developed, but further consideration resulted in adding SSO program guidance to DOE O 420.1 instead.
- FTCP: Develop a formal SSO Functional Area Qualification Standard.
 - The FTCP considered alternatives for SSO qualification and decided to support other FAQs discipline qualification with SSO Site Specific Qualification Standards, rather than issuing a separate SSO qualification standard.
- FTCP: Provide additional SSO staffing guidance to identify the number of SSO personnel needed at DOE sites, particularly in light of the various methods used for implementing this responsibility.
 - Alternatives for SSO staffing guidance were provided in a later FTCP Workforce Staffing Analysis guidance issued by the FTCP Chair.
- HSS: Enhance SSO programs by developing review criteria for more detailed evaluations of the safety system design.
 - A project to gather and review available resources was started. One Criteria Review and Approach Document (CRAD) has been later developed for SSO walkthrough inspections.

6.0 Technical Qualification Program Accreditation

Institutionalizing the voluntary TQP accreditation process was a result of the Department's deliverable for Commitment 13 in the DNFSB Recommendation 2004-1 IP, FTCP Corrective Action Plan. Accreditation enables both Headquarters and field organizations in DOE to demonstrate that they have an

effective program in place to ensure the technical competency of DOE employees whose duties and responsibilities require them to provide assistance, guidance, direction, oversight, or evaluation of contractor activities that could impact the safe operation of a defense nuclear facility. TQP Accreditation is valid for four years.

In May 2006, the first pilot TQP accreditation was conducted at the Y-12 National Security Complex in Oak Ridge, TN. This resulted in the Y-12 Site Office (YSO) receiving their TQP accreditation from the DOE Deputy Secretary. The Sandia Site Office and the NNSA Service Center were accredited in 2008. A pre-certification visit was conducted at the Carlsbad Field office. YSO was reaccredited in 2010 and the Nevada Site Office was reviewed for accreditation. The accreditation schedule is posted on the FTCP website.

7.0 National Training Center

The National Training Center (NTC) continues to deliver and develop safety and security training for the Department of Energy to include the National Nuclear Security Administration. The delivery modalities include instructor led, hands-on, and e-learning training. A Training Needs Assessment process is used to identify training requirements and gaps throughout the DOE and NNSA communities.

The NTC supports the DOE Technical Professional Career Development Path (TPCDP) in the training, development, and qualification activities and initiatives. In support of the TPCDP, the NTC provides technical and leadership training to technical professionals in the safety, health, environmental, security, and management functions to assist in the continuous development of technical, managerial, and leadership skills and competencies. The NTC is working to enhance GTB and STSM Overview Course training, having assembled customer focus groups in new course development.

In addition, the integration of safety and security to balance safety needs with security requirements has been emphasized and has been a major focus of the NTC training programs to assist in the development and qualification of our technical professionals. The NTC has physical assets to include facilities where “hands-on” training can be provided such as the Integrated Safety and Security Training and Evaluation Complex (ISSTEC).

8.0 Federal Technical Capability Program Directive

A major revision of the FTC Manual, last updated in 2004, was initiated early in FY 2007, resulting in issuance of DOE O 426.1 (Federal Technical Capabilities Order) in 2009. The Office of Health, Safety and Security (HSS) is the Office of Primary Interest (OPI) for revisions to the FTCP Order, with significant involvement from DOE Human Capital Management (HC) and the Panel.

Most notable changes were the following: Institutionalize the workforce analysis process; institutionalize the voluntary site accreditation process; institutionalize the Technical Intern Program; formalize the Nuclear Executive Leadership Training (NELT) Program; formalize process for developing or revising FAQ Standards; and formalize the Technical Professional Career Development Program. In addition to these changes, the FTC Order resulted in a streamlined and more concise description of the FTCP goals and activities. DOE O 426.1 was issued on November 19, 2009. A change to DOE O 426.1 was later undertaken to consolidate the FTCP principles in a single directive to clarify methods for requalification of Senior Technical Safety Managers (STSMs) and to update organizational changes taken place since the issuance of the Order in 2009.

9.0 Facility Representative Program

Facility Representatives are highly trained Department employees who provide effective day-to-day oversight of contractor operations at the Department's most hazardous facilities. Approximately 185 Facility Representatives around the complex provide oversight of operational activities important to mission accomplishment and worker and public safety. The Department's standard, DOE-STD-1063, *Facility Representatives*, defines the duties, responsibilities, and qualifications for Department Facility Representatives. The Facility Representative program supports Department managers in ensuring that Facility Representatives are competent and technically qualified to perform their jobs.

Key components of the program include:

- Complex-wide performance indicator reports provided to the Department's senior managers every quarter since 1999 for evaluation and feedback to improve the program
- Designated Facility Representative Steering Committee members and sponsors at each field and major Headquarters program office to serve as management advocates for Facility Representatives
- Monthly conference calls of the Facility Representative Steering Committee to discuss program development and operational oversight issues
- Annual Facility Representatives Workshop to promote the sharing of lessons learned from Facility Representative programs across the complex
- Facility Representative web site <http://www.hss.energy.gov/deprep/facrep> to provide information on the Facility Representative program, qualification standards, vacancy announcements, and other useful information for the Department's Facility Representatives.

Oversight performed by Facility Representatives provides Department line managers with real-time, accurate, and objective information on the effectiveness of contractor work performance and practices, including implementation of ISM. The Department's experience has shown that when personnel are dedicated to this

function, the information that they provide can be used proactively to ensure that work is completed in a safe and environmentally responsible manner. Further, Facility Representatives have obtained a strong understanding of the technical, nuclear and hazardous operations needed to successfully perform in positions of increased responsibility throughout the Department.

9.1 Facility Representative of the Year

The Facility Representative of the Year award is provided annually to a Facility Representative who consistently demonstrates exceptional performance and who makes significant contributions to the safe and efficient operation of Department facilities. Field elements nominated candidates, and a cross-cutting panel of senior DOE managers selected winners for 2009 and 2010. Nominees and winners received letters from the Secretary of Energy and the winners met in person with the Secretary.

9.2 Annual Workshop

The Annual Facility Representative Workshop expanded to include the Safety System Oversight community and now includes plenary sessions for both communities and separate tracks for more specialized sessions. The combined workshops were held in May of 2009 and, 2010 in Las Vegas, Nevada, with about 175 attendees, representing a significant portion of the Department's Facility Representative and Safety System Oversight communities.

10.0 2009 Goals Summary

The principal goals established for 2009 are identified in the FTCP FY09 *Operational Plan*. The 2009 goals include: Improving FTCP processes; preserving and enhancing technical capability; and developing competencies. The *FY09 Operational Plan* is posted on the FTCP website. The objectives and actions under each goal provide the road map for success:

10.1 Goal 1 -- Improve Processes

Objectives:

- Establish Record Keeping Requirements
- Develop Functional Area Qualification Standards (FAQS)
- Integrate Safety and Security
- Document and Maintain Processes

10.2 Goal 2 – Preserve and Enhance Technical Capability

Objectives:

- Identify Resource and Organizational Structure Needs to Improve Qualification Consistency and Transportability
- Establish and Effective Mid-Level Recruitment Program

- Investigate Establishing a DOE TQP-like Program

10.3 Goal 3 – Develop Competencies

Objectives:

- Define and Implement Processes to Become DOE-Recognized Experts
- Define and Implement Process for Continuing Learning
- Define and Implement Requalification Process
- Focus Training Support on the Needs of Technical Qualification Program

The following table provides a summary of deliverables and status of the 2009 Goals at the end of that year.

FTCP 2009 Operational Plan Closeout Summary

		<i>Brief Summary</i>	Objective Complete (Yes or No)	Carried Over to 2010 Operational Plan Goal #
Goal 1 Champion: Jim Todd, SSO	Improve Processes			
Objectives	Establish Record Keeping Requirements Champions: Jim Todd and Allen Tate, SSO	Resulted in Issue Paper, FTCP-09-003	Yes	No
	Develop Functional Area Qualification Standard (FAQS) Champion: Ali Ghovanlou, HSS	Performed a consistency review of all FAQS based on accepted expectations and revised the template.	Yes	No
	Integrate Safety and Security Champions: Winnie Lehman, NNSA SC and Pat Worthington, HSS	Evaluated and recommended inclusion of additional security elements to General Technical Base. Developed and implemented the Safeguards and Security FAQS.	No	Goal #3
	Document and Maintain Processes Champion: Ali Ghovanlou, HSS	Defined and documented the Technical Qualification Program in an ISO format. The Process Description is posted on the FTCP web site.	Yes	No
Goal 2 Champions: Larry Kelly, ORO & Dave Chaney, NNSA SC	Preserve and Enhance Technical Capability			
Objectives	Identify Resource and Organizational Structure Needs to Improve Qualification Consistency and Transportability Champion: Allen Tate, SSO	Questionnaire was completed (Action remains to consolidate any needed FTCP-wide organizational resource considerations).	Yes	No
	Establish an Effective Mid-Level Recruitment Program Champions: Sean Clayton and Karen Lerma, HC-HQ	NNSA, EM and Corporate DOE Intern Programs Reviewed for FTCP. Mid-Level Recruitment Programs White Paper Posted on FTCP Website. OPM Administrative Flexibilities Guide Distributed to FTCP. New Draft DOE Handbook on Recruitment and Retention	Yes	No

		Incentives; DOE Mentoring Program; and White Paper posted on FTCP Website.		
	Investigate Establishing a DOE TQP-Like Program Champions: Larry Kelly, ORO and Bob Stallman, RL	Developed a TQP-Like Pro-Con Paper and posted examples of TQP-Like Programs on FTCP Website.	Yes	No
Goal 3 Champion: Carol Sohn, Office of Science and Mike Mikolanis, SRS	Develop Competencies			
Objectives	Define and Implement a Process to Become DOE-Recognized Experts Champion: Dave Chaney, NNSA SC	Several actions were completed during FY2009 to fulfill this objective including: development of attributes, responsibilities and qualification methods for current DOE/NNSA experts, evaluation of external industry groups relative to recognized experts, development of definition of DOE/NNSA recognized expert and white paper on DOE/NNSA recognized expert. (All posted on FTCP web site).	Yes	No
	Define and Implement Process for Continuous Learning Champions: Bill Schleyer, NNSA SC and Adolph Garcia, ID	Several actions were completed during FY2009 to fulfill this objective including: obtaining copy of ANSI/ACET 1-2007, obtaining continuous training requirements/ programs from external organizations, identification of processes/tools/mean/methods of effective implementation and development of draft portability definition.	No	Goal #1 and #4 (portions)
	Define and Implement Requalification Process Champion: Mike Mikolanis, SRS	Several actions were completed during FY2009 to fulfill this objective including: development of white paper that was issued.	Yes	No
	Focus Training Support on the Needs of Technical Qualification Program Champion: Mark Alsdorf, NNSA SC	Several actions were completed during FY2009 to fulfill this objective including: identifying the purpose of a course competency matrix, identifying available technical courses, obtained course descriptions, syllabuses, lesson plans, etc. for SME evaluation, identification of DOE FAQS SMEs to initially evaluate course materials, and identification of database platform.	No	Goal #1

11.0 2010 Goals Summary

The principal goals established for 2010 are identified in the FTCP FY10 *Operational Plan*. The 2010 goals include: Identification of Value-Added Training and Linking to TQP Competencies; Accelerate and Expand Implementation of E-TQP; Integrate Safety and Security; Enhance TQP Objectives and Criteria and Establish Performance Measures. The *FY10 Operational Plan* is posted on the FTCP website. The objectives and actions under each goal provide the road map for success:

11.1 Goal 1 – Identification of Value-Added Training and Linking to TQP Competencies

Objectives:

- Completion of FAQs Course/Competency Matrix
- Define and Implement a Standard Approach for Continuing Technical Training for Personnel in the TQP
- Develop an Easily Accessible Competency/Course Clearinghouse for Department's Technical Qualification Program

11.2 Goal 2 – Accelerate and Expand Implementation of eTQP

Objectives:

- Acceleration of eTQP Baseline
- Accelerate Implementation of eTQP
- Expand Use of eTQP Functionality

11.3 Goal 3 – Integrate Safety & Security

Objectives:

- Establish Qualifying Officials for the Security TQP Program
- Provide Guidance and Assistance to Security Professionals Meeting DOE-STD-1123-2009
- Work with NTC on Establishing Competency to Training Matrix for DOE-STD-1171-2009
- NA-70/NNSA Service Center/NTC Work Toward Developing Criteria for STSSM and SELT
- NA-70 Prepare Presentation on proposed Path Forward for Integration of Safety and Security Based on Program Formalization and STSSM Criteria

11.4 Goal 4 – Enhance TQP Objectives and Criteria and Establish Performance Measures

Objectives:

- Benchmark/Investigate Competency and Training Effectiveness Performance Metrics Used in Other Industries Against Those in DOE
- Evaluate TQP CRADS for Improvements and Integration of Performance Metrics for Acquiring and Applying Continuous Improvement

The following table provides a summary of deliverables and status of the 2010 Goals at the end of that year.

FTCP 2010 Operational Plan Closeout Summary

		<i>Brief Summary</i>	Objective Complete (Yes or No)	Carried Over to 2011 Operational Plan Goal #
Goal 1 Champion: Ali Ghovanlou, HSS & Robert Stallman, ID	Identification of Value-Added Training and Linking to TQP Competencies			
Objectives	Completion of FAQS Course/Competency Matrix Champion: Mark Alsdorf, NNSA SC	The purpose of the FAQS course / competency matrix is to provide a mechanism for DOE TQP P participants to select specific training courses to satisfy individual FAQS competencies. Potential course descriptions were obtained for FAQS sponsors to use as a starting point in identifying courses. FAQS sponsors participated in the review and evaluation of identified courses for most FAQS. A Microsoft Access database has been populated with the received data from which queries can be performed based on competency statement number, course name, or vendor. Continued to improve database interface, develop a draft User's Guide, and student course evaluation criteria to include feedback analysis process, acceptable dissemination vehicle, and database adjustment criteria.	Yes	No
	Define and Implement a Standard Approach for Continuing Technical Training for Personnel in TQP Champions: Mark Sundie, YSO & Carol Ingram, LSO	The team reviewed current continuing training requirements across all 33 FAQSS, analyzed the requirement, and identified inconsistencies. Subsequently the team evaluated the characteristics for usefulness and practicality in maintaining technical competence across a diverse DOE complex with	Yes	No

		varying needs and concluded that responsibility for determining the continuing training requirements for the site or HQ office should reside with the office manager, who is in the best position to tailor requirements according to the hazards, priorities, and circumstances of the office. The team defined at a high level the continuing technical training needs of personnel in the TQP, and proposed a template to be included in each FAQS as it is updated. The template was presented at the March Face to Face meeting. The FTCP approved the template on the May 19, 2010, FTCP conference call.		
	Develop an Easily Accessible Competency / Course Clearinghouse for Department's Technical Qualification Program Champion: Arnold Guevara & Jeannie Lozoya, NTC	Deferred to 2011.	No	Yes (Goal #3)
Goal 2 Champions: Allen Tate, SSO & Robert Hastings, RL	Accelerate and Expand Implementation of eTQP			
Objectives	Acceleration of eTQP Baseline	The team developed an implementation schedule but the rest of the objective was not accomplished due to HC-1 decision to change the eTQP software platform to PLATEAU versus Vision. Subsequent energy of the team was spent on trying to find alternative approaches to fund and use Vision.	No	Yes (Being Done by HC-NTC)
	Accelerate Implementation of eTQP Champion: Robert Hastings, RL	The team began development of business rules based on the use of Vision software (HC-21 has those ruled that were completed thus far). Rule development and manual creation was stopped upon HC-1 decision to change the eTQP software platform	No	Yes (Being Done by HC-NTC)

		to PLATEAU.		
	Expand Use of eTOP Functionality Champion: Allen Tate, SSO	None.	No	Yes (Being Done by HC-NTC)
Goal 3 Champions: Frank Russo, NNSA & Debra McNeilly, NA-70	Integrate Safety & Security			
Objectives	Establish Qualifying Officials (QO) for the Security TQP Program Champions: Debra McNeilly, NA-70, Winnie Lehman & Mark Alsdorf-NNSA SC	All NNSA sites have identified QOs. The NNSA SC and YSO are included in the eTOP pilot program. Adequate Qualifying Officials training is available via NNSA SC website. NNSA SC records retention and attestation forms are adequate and no changes are required. QO assistance is provided by NA-70 or NNSA SC.	Yes	No
	Provide Guidance and Assistance to Security Professionals Meeting DOE-STD-1123-2009 Champions: Debra McNeilly, NA-70 & Russ Showers, NTC	NA-70 developed 1123 safety training that was taught via VTC in Feb, Mar, and Apr 2010. The NTC has developed a webinar that was taught several times in July. The NTC plans to modify the Safety GTB training to allow it to be taken in modules, either the entire program for Safety personnel or the 14 competencies for the Security personnel. • Update SAS-101 and to address all the security competencies in the revised program. • Continue to offer the webinar, upon request, until the SAS-101 work is complete.	Yes	No
	Work with NTC on establishing competency to training matrix for DOE-STD-1171-2009 Champions: Arnold Guevara & Russ Showers, NTC	Competency to Training Matrix. The NTC has conducted a cursory review of available NTC training and the competencies contained in DOE-STD-1171-2009, many competencies are addressed in whole or in part by various courses. A complete competency to training matrix will require significant resource commitment. However, the NTC will assist by responding to inquiries regarding specific competencies addressed by specific courses. Additionally, the NTC is available, on request, to assist in providing training to meet specific competency requirements.	Yes	No

	<p>NA70/ Service Center/NTC work toward developing criteria for STSSM and SELT</p> <p>Champions: Arnold Guevara and Russ Showers, NTC</p>	<p>The STSSM Qualification Card and the SELT training have been developed. The first SELT class was scheduled for October 2010 but was cancelled due to scheduling conflicts. Rescheduled to October 2011.</p>	<p>No (Course has not been developed)</p>	<p>NTC</p>
	<p>NA-70 Prepare Presentation on Proposed Path Forward of Integration of Safety and Security Based on Program Formalization and STSSM Criteria</p> <p>Champion: Debra McNeilly</p>	<p>The end of year status for Goal 3 was briefed at the FTCP meeting in September 2010 by the NSO Associate Manager for Safeguards and Security.</p>	<p>Yes</p>	<p>No</p>
<p>Goal 4</p> <p>Champions: Pat Worthington, HSS & Todd Lapointe, CNS</p>	<p>Enhance TQP Objectives and Criteria and Establish Performance Measures</p>			
	<p>Benchmark/Investigate Competency and Training Effectiveness Performance Metrics used in Other Industries Against those in DOE</p> <p>Champions: Pat Worthington, NSS, Todd Lapointe, CNS & Roger Christenson, PNSO</p>	<p>A teleconference was held with INPO National Academy for Nuclear Training representatives in April 2010. The results were promising and generated several pieces of collateral that have varying levels of applicability. Though many companies have robust training programs, feedback on their effectiveness has not been a priority and there seems to be a general lack of commercial training effectiveness metrics data. Through discussions the team recognized that training effectiveness is only one element of overall qualification program. The focus of the objective shifted away from training as a sub-element and toward qualification and qualification effectiveness. Several qualification models, including the Kirkpatrick Model, were examined which led to this shift in focus. During the March Face- to- Face meeting, the team revised the path forward to include;</p> <ul style="list-style-type: none"> • Develop a survey for data collection from the sites 	<p>No</p>	<p>Goal #3</p>

		<p>(management and/or FTCP agents) on their views of the link between their qualification programs and job performance in the field; and</p> <ul style="list-style-type: none"> • Collect internal and external qualification process indicators that currently exist (internal, for example, experience as an element of qualification and external, for example overall site performance in areas such as CAIRS and ORPS). The objective has been deferred to FY 2011. This objective now falls under the current Goal 3 to explore the linkage between qualifications and performance. 		
	<p>Evaluate TQP CRADS for Improvements and Integration of Performance Metrics for Acquiring Continuous Improvement</p> <p>Champions: Ali Ghovanlou, Allen Tate, Jeanette Yarrington</p>	<p>The team reviewed the final reports from past accreditations at SSO and NNSA/SC that were completed during the month of June 2008. The team noted that there is some overlap and redundancy in the current accreditation CRADS. The most recent accreditations conducted during the summer of 2010 at NSO and YSO will be reviewed under the current Goal 3 in FY 2011. Any proposed changes to the CRADS will require FTCP Agent review across the FTCP to ensure that all are comfortable with the proposed changes. Objective deferred to FY 2011.</p>	No	Goal #3

APPENDIX A

**Federal Technical Capability Panel
Face-to-Face Meeting
Livermore Site Office
Livermore, CA
January 27, 2009
AGENDA**

8:00-8:15 a.m.	Welcome	Karen Boardman, FTCP Chair LSO Manager
8:15-8:30 a.m.	TQP Accreditation • Lessons Learned • Schedule	Pat Worthington / Ali Ghovanlou
8:30-8:45 a.m.	Risk Informed Decision Process for Nuclear Safety	Ali Ghovanlou
8:45-9:20 a.m.	SSO Working Group/Report Status	Jim O'Brien
9:20-9:30 a.m.	Break	
9:30-10:30 a.m.	Requalification Issue Paper Comments	Mike Mikolanis
10:30-10:40 a.m.	Break	
10:40-11:40 a.m.	Vision Demonstration and Pilot @ SC & ORO	John Martin / Gary Sprague / ETS
11:40 a.m.–1:00 p.m.	Lunch	
1:00- 2:30 p.m.	2009 FTCP Operations Plan Breakout Sessions	
	<u>Breakout Sessions Report Out</u>	
2:30-2:45 p.m.	Goal 1 -- Improve Processes	Jim Todd
2:45-3:00 p.m.	Goal 2 – Preserve and Enhance Technical Capability	Larry Kelly
3:00-3:15 p.m.	Goal 3 – Develop Competencies	Carol Sohn
3:15-3:30 p.m.	Break	
3:30-4:00 p.m.	Other Issues (Beyond Operational Plan, e.g. FTCP Workforce Staffing due 1/31/09, etc.)	All
4:00-4:30 p.m.	Closeout	Karen Boardman
	January 28, 2009	
8:00 a.m.	NIF Tours	Pete Rodrik / Carol Ingram

APPENDIX A

**Federal Technical Capability Panel
Face-to-Face Meeting
Knoxville Convention Center
525 Henley Street, Knoxville, TN
August 25, 2009
AGENDA**

8:00-8:30 am	Welcome	Karen Boardman, FTCP Chair Gerald Boyd, ORO Manager Ted Sherry, YSO Manager
8:30-9:00 am	DNFSB Staff Qualifications for New Employees	Eric Rozek / Matt Forsbacka
9:00-9:30 am	ETS Support/Vision – eTQP Pilot Update	Barry Weaver/John Perrault
9:30-9:45 am	Break	
9:45-10:15 am	NTC Activities	Arnold Guevara
10:15-10:30 am	Safety and Security Integration Position Paper	Winnie Lehman
10:30-10:45 am	SSO Issues Paper	Earl Hughes
10:45-11:00 am	TQP Accreditation CRADs Lessons Learned	Ali Ghovanlou
11:00 am–12 Noon	Lunch	
12 Noon–1:00 pm	2009 FTCP Operational Plan Closeout <ul style="list-style-type: none">• Goal 1 Team Lead• Goal 2 Team Lead• Goal 3 Team Lead• Requalification Issue Paper Closeout• Competency to Training Matrix Status	Karen Boardman Jim Todd David Chaney / Larry Kelly Carol Sohn Michael Mikolanis Mark Alsdorf
1:00-2:00 pm	Direction of the FTCP (Are we on track?) <ul style="list-style-type: none">• HQ and Site Issues Discussion/Operational Plan	All
2:00 -3:30 pm	2010 FTCP Operational Plan Development Breakout Sessions <ul style="list-style-type: none">• Goal 1 (Winnie Lehman - Facilitator)• Goal 2 (Mark Alsdorf - Facilitator)• Goal 3 (Arnold Guevara/Jeannie Lozoya - Facilitators)	Karen Boardman
3:30-3:45 pm	Break	
3:45-4:45 pm	Goal Teams Report-out <ul style="list-style-type: none">• Goal 1• Goal 2• Goal 3	Karen Boardman Champion Champion Champion
4:45-5:00 pm	Closing Remarks	Karen Boardman

APPENDIX B

**Federal Technical Capability Panel
Face-to-Face Meeting
Nevada Site Office (NSO)
Great Basin Conference Room
March 30, 2010
AGENDA**

8:00-8:30 am	Welcome	Karen Boardman, FTCP Chair Steve Mellington, NSO Manager
8:30-9:30 am	FTC Order Changes Review	Ali Ghovanlou/Dave Chaney
9:30-9:45 am	Break	
9:45-10:15 am	FAQS Status	Ali Ghovanlou
10:15-10:30 am	eTQP Discussion	Allen Tate
10:30-11:00 am	NTC Activities	Arnold Guevera
11:00-11:15 am	SSO Workshop Update	Earl Huges/James Heffner
11:15 –12:30 pm	Lunch	
12 Noon–1:00 pm	2010 FTCP Operational Goal Expectations	Karen Boardman
1:00 – 2:30 pm	2010 FTCP Operational Plan (Breakout Sessions) <ul style="list-style-type: none">• Goal 1-Identification of Value Added Training and Linking to TQP Competencies• Goal 2-Accelerate and Expand Implementation of eTQP<ul style="list-style-type: none">• eTQP Pilot Status• ETS Support• Goal 3-Integrate Safety and Security• Goal 4-Enhance TQP Objectives and Criteria and Establish Performance Measures	Karen Boardman Ali Ghovanlou/Bob Stallman Allen Tate/Rob Hastings John Perrault Barry Weaver Frank Russo/Debra McNeilly Pat Worthington/Todd LaPointe
2:30-2:45 pm	Break	
2:45 -4:00 pm	2010 FTCP Operational Plan (Report Out) <ul style="list-style-type: none">• Goal 1 Champions• Goal 2 Champions• Goal 3 Champions• Goal 4 Champions	Karen Boardman Ali Ghovanlou/Bob Stallman Allen Tate/Rob Hastings Frank Russo/Debra McNeilly Pat Worthington/Todd LaPointe
4:00-4:30 pm	2010 FTCP Operational Plan Summary	Karen Boardman
4:30-4:45 pm	NTS Tour Information (March 31, 2010)	Ray Phifer
4:45-5:00 pm	Closing Remarks	Karen Boardman

APPENDIX B

**Federal Technical Capability Panel
Face-to-Face Meeting
Augusta Marriott Hotel
Augusta, GA
September 14, 2010
AGENDA**

8:00-8:15 am	Welcome	Karen Boardman, FTCP Chair Jack Craig, Acting SRS Director
8:15-8:45 am	FAQS Updates	Ali Ghovanlou/Dave Chaney
8:45-9:15 am	Expert Level Knowledge Competency Status	Debbie Monette/Barry Weaver
9:45-10:00 am	Break	
10:00-10:30 am	NTC Activities	Arnold Guevera
10:30-10:45 am	SSO Workshop Update	Todd LaPointe
10:45-11:30 am	2010 FTCP Operational Plan (Closeout) <ul style="list-style-type: none">• Goal 1-Identification of Value Added Training and Linking to TQP Competencies• Goal 2-Accelerate and Expand Implementation of eTQP• Goal 3-Integrate Safety and Security• Goal 4-Enhance TQP Objectives and Criteria and Establish Performance Measures	Karen Boardman Ali Ghovanlou/Bob Stallman Allen Tate/Rob Hastings Frank Russo/Debra McNeilly Pat Worthington/Todd LaPointe
11:30 –1:00 pm	Lunch	
1:00–1:30 pm	2011 FTCP Operational Goal Expectations	Karen Boardman
1:30 – 3:00 pm	2010 FTCP Operational Plan (Breakout Sessions) <ul style="list-style-type: none">• Goal 1 Champion• Goal 2 Champion• Goal 3 Champion	
3:00-3:15 pm	Break	
3:15 -4:00 pm	2011 FTCP Operational Plan (Report Out) <ul style="list-style-type: none">• Goal 1• Goal 2• Goal 3	Champion Champion Champion
4:00-4:30 pm	Open Discussion	Karen Boardman
4:30-5:00 pm	Closing Remarks	Karen Boardman