Department of Energy
National Training Center
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Albuquerque, NM 87185-5400

October 11, 2013

MEMORANDUM FOR DISTRIBUTION

FROM: KAREN L. BOARDMAN
CHAIR
FEDERAL TECHNICAL CAPABILITY PANEL

SUBJECT: Annual Workforce Analysis and Staffing Plan Report for Calendar Year 2013

The Department of Energy (DOE) Federal Technical Capability Order, DOE O 426.1 Chg.1, requires that managers perform an annual workforce analysis of their organization and develop staffing plans that identify technical capabilities and positions they need to ensure safe operation of defense nuclear facilities. This workforce analysis process continues to cover technical capability needs to address defense nuclear facility and related operational hazards. Individual site summaries developed at the end of each year are a basis for DOE Federal Technical Capability Panel (FTCP) reporting to the Secretary of Energy summarizing DOE's federal technical capabilities for defense nuclear facility safety assurance.

This memorandum forwards guidance for performing this year's workforce analysis and reporting the results. Report format and directions are in Attachment 1. This is a consistent format for your workforce analysis and staffing plans for evaluation at the organizational level. Workforce analysis guidance (Attachment 2) should assist you in determining your technical staffing needs. Use of equivalent technical staffing analyses methods is acceptable. The DOE FTCP Technical Qualification Program (TQP) Workforce Analysis and Staffing Plans and Summary Reports must be formally transmitted to me by January 15, 2014.

The FTCP website is currently in migration to the new Energy website, and therefore inaccessible by field offices. We will advise when it is available. In the meantime, electronic copies of the report format, completed 2012 reports and other staffing worksheets may be obtained by contacting Jeanette Yarrington, at (301) 903-7030, or by email to jeanette.yarrington@hq.doe.gov.

If you have questions, please contact your DOE FTCP Agent, or the DOE FTCP Deputy, Dave Chaney, NA-SH-2, at (505) 845-4300.

Attachments (2)

cc w/attachments:
DOE FTCP Agents
D. Chaney, NA-SH-2/FTCP Deputy
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J. Yarrington, HS-10

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Annual Workforce Analysis and Staffing Plan Report
as of December 31, 2013

Reporting Office: _____

This is a template. Explanatory/example wording not in bold type should be deleted for the report.

SECTION ONE: SITE MISSION(S), OUTLOOK, AND CHARACTERISTICS

1. Provide several bullets that frame the types and magnitude of technical capabilities currently needed for safe operations in your sites hazardous facilities or activities (non-nuclear and nuclear facilities including radiological facilities). For example:
   - Three major operating Category II and III nuclear facilities;
   - Four significant nuclear facilities undergoing Decontamination and Decommissioning (D&D);
   - Major vitrification facility under construction;
   - One non-defense reactor facility;
   - One operating radiological facility;
   - Eight operating hazardous non-nuclear facilities; and
   - One major activity retrieving buried waste.

2. Describe any potential or probable changes to the mission that may significantly affect technical staffing needs. For example:
   - Within eight months, facilities under active D&D are to increase from four to nine and schedule accelerate from twelve years to five years;
   - Operation of new test facility to start next year;
   - Former separations facility is being converted to a Transuranic waste storage facility; and
   - All operating facilities to be shut down within two years.

Site Characteristics

Number and Hazard Category (HC) (per DOE Standard 1027) of NUCLEAR Facilities:

HC1 _____ **HC2** _____ **HC3** _____ **Less than HC3** _____

Number of Documented Safety Analyses: _____

Total Number of Safety Systems credited in Documented Safety Analyses: _____

Number of High or Moderate Hazard NON-NUCLEAR Facilities: _____

Number of Low Hazard NON-NUCLEAR Facilities: _____

Number of Site Contractor FTEs (by Program Office): _____

Number of Federal Office FTEs (by Program Office): _____

Sites accountable to multiple Headquarters Program Offices list FTEs by each Office, e.g. Total 22 FTEs (EM - 20, NE - 2).

SECTION TWO: TECHNICAL STAFFING

Complete the Technical Staffing Summary Table as follows for each of the technical capabilities:

- Senior Technical Safety Manager (STSM) qualification needs are determined by the position in the organization rather than the FTE workload. For STSMs, enter the number of positions requiring STSM qualification and the number assigned as of December 2013.
- For Technical Capabilities other than STSM, enter the number of personnel in Full Time Equivalents (FTE), [e.g. 0.1 FTE] needed to support safe operations for your site or office. Enter the number of FTE personnel who are on board as of December 2013.
- STSM/Facility Representative (FR)/Safety System Oversight (SSO) personnel are generally required for all nuclear facilities. FRs are also used for other types of hazardous facilities. FR personnel are normally not assigned to partial FTE requirements.
- If an SSO is assigned as a partial FTE to both an SSO Technical Capability and as a non-SSO, include a comment noting the division of time. For example, a fire protection engineer assigned 0.5 FTE as a SSO and 0.5 FTE for other fire protection work could be included in the SSO total and also entered on the fire protection engineering competency as 0.5 FTE, with a comment that the fire protection engineer also serves 0.5 FTE as a SSO. The objective is to avoid double counting and to be clear if a fully utilized specialist is unavailable for other assignments.
- FR and SSO staffing analysis worksheets and examples are available by request.
- The same person may be included in multiple capabilities as a fraction of an FTE in each capability; however, this requires completing multiple FAQs.
- If other types of experts in the list are not needed at the site, show zero in the "Number of FTEs Needed" columns. Do not delete the capability from the list. Only list technical capabilities with an approved Functional Area Qualification Standard (FAQ). Technical capability needs that are not covered by a FAQ should be noted in Section 5 for potential development of new FAQs.
- Collateral duties assigned should be considered in completing the workforce analysis.
- Use the comment column to identify compensatory measures or other support.
- Planned near-term departures may be taken into account by reducing the number available and noting the departure date.

Technical Staffing Summary Table (see Notes below)

	For All Facilities[1]		
Technical Capability	Number of FTEs Needed[1]	Number of FTEs Onboard[1]	Comments
Senior Technical Safety Managers			
Safety System Oversight Personnel			
Facility Representatives			
Other Technical Capabilities:			
Aviation Safety Manager			
Aviation Safety Officer			
Chemical Processing			
Civil/Structural Engineering			
Confinement Ventilation and Process Gas Treatment			
Construction Management			
Criticality Safety			
Deactivation & Decommissioning			
Electrical Systems			
Emergency Management			
Environmental Compliance			

Environmental Restoration			
Facility Maintenance Mgt.			
Fire Protection Engineering			
Industrial Hygiene			
Instrumentation & Control			
Mechanical Systems			
NNSA Packaging Cert. Engineer			
Nuclear Explosive			
Nuclear Safety Specialist			
Occupational Safety			
Quality Assurance			
Radiation Protection			
Safeguards & Security			
Safety Software QA			
Technical Program Manager			
Technical Training			
Transportation & Traffic Mgt.			
Waste Management			
Weapons QA			
Federal Project Directors[2]			

Notes:

1. These columns identify the number of FTEs needed to perform the Federal Safety Assurance function for your site or office based on potential facility and operational hazards.
2. Federal Project Managers/Directors are not qualified via the Technical Qualification Program, but are qualified in accordance with the Project Management Career Development Program.

Section Three: Current shortages and plans for filling them

List current shortages of technical personnel identified in Section Two, compensatory measures if applicable, actions taken to fill shortages, and schedule for filling shortages.

Prioritize the shortages into three groups as follows, and note Defense Nuclear Facility related positions:

- High priority positions to be filled near term using accelerated recruitment/replacement (e.g. relief from hiring freeze)
- Medium priority positions to be filled using normal recruitment/replacement process
- Other positions to be covered by alternate means (e.g. matrix, support service contractors, other sites, programs or service centers). Except for short term assignments, matrix coverage should not rely on technical staff already counted in the table.

Section Four: Projected shortage/surplus over next five years

Identify the impact of the changes described in Section One on technical personnel and positions.

Take into account expected retirements and other anticipated changes.

For example: The increased pace of D&D activity is expected to double the need for Nuclear Safety Specialists to four personnel over the next 1 1/2 years, followed by a drop to zero in three years as the facilities become operationally clean. The temporary surge (2 additions) will be covered under a support service contract with XYZ corporation. One staff member has indicated a plan to retire as soon as eligible next year, which may result in the need for a third contractor. The other staff member hopes to be assigned to the core cadre in three years.

Section Five: General comments or recommendations related to the Technical Staffing

Identify for the FTCP any concerns/issues/recommendations with maintaining technical capabilities for the site or the Department, particularly in light of any significant trends in qualified TQP participants. Identify any current or projected needs for additional Functional Area Qualifications.

Workforce Analysis Guidance

Process to Determine Facility Representative (FR) Staffing

This staffing analysis methodology builds on the guidance in DOE-STD-1063-2011, *Facility Representatives.* It provides a technical approach to determine the appropriate amount of FR oversight necessary for a facility given its hazard level, operational activity and complexity, and programmatic importance. It also helps ensure the Department has the necessary skills and resources available to carry out its missions and effectively oversee operations at its hazardous facilities.

Methodology

The following elements should be included in each site analysis:

1. A relative ranking of facilities based on hazards or risks present to the public, worker, and/or environment.

2. A method for determining FR coverage (e.g. continual, frequent, occasional, etc.) based on facility categorization and adjusted for other factors identified in DOE-STD-1063-2011 such as, facility size, operations complexity, hazards and risks, etc.

3. A determination of FR Full Time Equivalent (FTE) requirements based on coverage assigned and adjusted to address factors considered in Step 2, above.

4. A determination of actual manning based on FR FTE requirements adjusted to account for actual staff time available to support the FR function when competing activities such as collateral duties, leave, training, etc., are considered.

The Facility Representative community developed a Microsoft Excel spreadsheet to automate developing the staffing analysis. This spreadsheet, as well as past examples of implementing this approach, may be obtained by contacting Jeanette Yarrington, at (301) 903-7030, or by email to jeanette.yarrington@hq.doe.gov.

The FTCP website is currently in migration to the new Energy website, and therefore inaccessible by field offices. We will advise when it is available.

Process to Determine Safety System Oversight (SSO) Staffing

Two alternatives are provided to determine SSO staffing for defense nuclear facilities at a site. One is adapted from the FR staffing process which uses the guidance in DOE-STD-1063-2011, *Facility Representatives.* The FR staffing process was modified to address the duties and responsibilities of SSOs described in DOE O 426.1 Chg.1, *Federal Technical Capability* and takes into account safety system characteristics, including system size, condition, and complexity, and other factors deemed pertinent. The other process considers the tasks and products needed for a facility's safety system oversight program and calculates the number of people needed to accomplish the oversight program. Either is acceptable for determining SSO staffing needs.

The following elements should be included in each site analysis.

1. A relative ranking of facilities and safety systems based on the hazards or risks presented to the public, the worker, and/or the environment.

2. A method for ranking facilities and safety systems and prioritizing SSO coverage based on hazards or risks, as identified in Step 1 above, and other factors such as facility/system size, operations complexity, hazards and risks, etc.

3. A determination (i.e., an informed management judgment) of SSO FTE requirements based on the priority of coverage, the system activity level, and the identified base coverage levels adjusted to address factors considered in Step 2 above.

4. A determination of actual staffing based on SSO FTE requirements adjusted to account for actual staff time available to support the SSO function when competing activities such as other duties, leave, training, etc., are considered.

Microsoft Excel spreadsheets to automate developing the staffing analysis, as well as past examples of implementing this approach, may be obtained by contacting Jeanette Yarrington, at (301) 903-7030, or by email to jeanette.yarrington@hq.doe.gov.

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Process to Determine Senior Technical Safety Manager (STSM) Staffing

The nominal STSM Full Time Equivalency (FTE) coverage estimate is derived from specific requirements of the Federal Technical Capability Order. The Field Element Manager and the Deputy Field Element Manager are normally both STSM qualified. Direct line management of the FR, SSO, Safety Management Program (SMP), Authorization Basis (AB)/Nuclear Safety Specialist (NSS), and other required Technical Qualification Program (TQP) staff for defense nuclear facilities must also be STSM qualified. The required STSMs can typically be determined by using the organization chart and organizational roles and responsibilities. The portion of time allotted to STSM duties is generally a function of the number of FR, SSO, SMP, AB/NSS, and other TQP staff reporting through the STSM.

STSM qualification for line management of these key staff members is to ensure that all planning, guidance, direction, assistance, oversight, and evaluation that might reasonably affect safety systems or SMPs, is conducted in a manner that ensures systems and the programs remain fully functional and implemented, respectively. The requirement helps ensure these key supervisors and managers are technically knowledgeable and technically competent with regard to the facilities and programs under their span of control, as well as good managers and leaders.

Normally a STSM would be a GS/GM-15, NNSA NN-4, EJ/EK/EN-IV/V, or SES.

Process to Determine Technical Qualification Program (TQP) Staffing

This staffing analysis methodology should be used to determine TQP staffing required to preserve federal safety assurance capabilities for a U.S. Department of Energy (DOE) site or Office. The methodology was adapted from the Facility Representative staffing process.

Methodology

The following elements should be considered in each site analysis:

1. A relative ranking of facilities and safety systems based on the hazards or risks presented to the public, the worker, and/or the environment.

2. A method for ranking technical issues scope and prioritizing TQP Position coverage based on hazards or risks, as identified in Step 1 above, and other factors such as facility/system size, operations complexity, hazards and risks, etc.

3. A determination (i.e., an informed management judgment) of TQP FTE requirements based on the priority of coverage, the technical issue priority and the identified base coverage levels adjusted to address factors considered in Step 2 above.

4. A determination of actual staffing based on TQP FTE requirements adjusted to account for actual staff time available to support the function when competing activities such as collateral duties, leave, training, etc., are considered.

For the purposes of this report, the term “critical position” has not been used. The term “federal safety assurance positions” is considered more applicable to meeting DOE’s comprehensive management obligations for safety assurance.