

NPO Annual FTCP Staffing Analysis As of December 31, 2015

Section One: Current Mission(s) of the Organization and Potential Changes

1. NPO and Consolidated Nuclear Security, LLS (CNS) share a joint vision for the Pantex and Y-12 Plants that includes securing America as the NNSA's production integrator and provider of the nuclear deterrent to the Department of Defense; demonstrating expertise in nuclear technology and special nuclear materials processing and manufacturing technologies; and serving the Nuclear Security Enterprise through our people, processes, infrastructure, and business systems. One of NPO's primary roles is maintaining effective oversight of all contracts and contracting operations managed at Pantex and the Y-12 National Security Complex.

This jointly held vision ensures alignment for the plants and, though through different roles and responsibilities, highlights the common objective for the sites. The NPO mission supports this common vision and is grouped into the following topical areas:

- **National Security** – Protects critical National Security mission elements by being the best led, best trained, and best equipped in protecting strategic nuclear material, weapon components, and infrastructure.
- **Nuclear Technology and Materials** - Manufactures complex components to extremely high levels of precision that includes processing highly enriched uranium to propel nuclear submarines in the Naval Reactors Program. This includes a collaborative partnership with other federal agencies and industry to apply the best scientific discoveries to real-world manufacturing challenges, developing processes and producing prototypes. Create prototypes of complex equipment.
- **Nuclear Explosives Operations** - Ensures a safe and reliable nuclear deterrent through assessment, surveillance and refurbishment that includes life extension, surveillance and dismantlement.
- **High Explosives Operations** - Provides our customers with high explosive products and services through unique core technologies in explosive manufacturing, engineering and physics, materials evaluation and analytical services, and Strategic Partnerships Program.
- **Nuclear Materials Management and Storage Program** - Receives, stores, protects, dispositions, and manages strategic and special nuclear materials and provides programmatic planning, analysis, and forecasting for national security material requirements supporting the Stockpile Stewardship and other DOE programs.
- **Nuclear Packaging System Program** - Provides certified and economical packaging for transporting and storing weapon components and assemblies, radioactive materials, and other materials.
- **Naval Reactors** - NPO Y-12 processes highly enriched uranium for use by the Naval Reactors Program for Naval Nuclear Propulsion. Support of the Naval Reactors program began in Fiscal Year 2002 and is currently planned through FY 2050 and beyond. Dismantled weapons are used to provide feedstock, moving the material off-site and reducing Y-12's storage footprint and risk.
- **Stewardship** - Provides the environmental, infrastructure, human capital and energy management stewardship to support the unique production processes at both Pantex and Y-12.
- **UPO Support** – Provides technical and business management support to the Uranium Processing Facility (UPF) Project Office at Y-12 on an as needed basis to supplement the oversight functions of the UPF Project Office.

2. There are a number of special initiatives and potential changes in requirements that could impact NPO staffing levels in the future. Major areas include the following:
- Line item projects are expected to increase over the next several years.
 - NPO has streamlined the monthly performance evaluation and assessment process by heavily relying on contractor performance indicators, metrics, and contractor self-assessments. NPO has instituted cross training/qualification for multiple positions in order to align the work load with available staff and to provide backup capability. Cross training/qualification has been implemented for Nuclear Safety Specialists and Safety System Oversight, Facility Representatives, and other subject matter experts.
 - Three Quality Assurance (QA) Engineers and one QA Specialist will be hired in FY16.
 - Two Associate Deputy Managers for Operations will be hired in FY16 to fill existing vacancies.
 - One Facility Representative will be hired in FY16 to fill an existing vacancy.
 - One Program Manager will be hired in FY16 to fill an existing vacancy.
 - One Nuclear Safety Engineer will be hired in FY16 to fill an existing vacancy.
 - One Security Specialist will be hired in FY16 to fill an existing vacancy.

Section Two: Technical Staffing

Number of Hazard Category 1, 2, or 3 Nuclear Facilities: HC 1: 0 HC 2: 159 HC 3: 0

Number of Radiological Facilities:60

Number of Chemically Hazardous Facilities:15

Number of Documented Safety Analyses:26

Number of Safety Systems:.....33

Number of Site Contractor FTEs:7,459

Number of Federal Office FTEs:118*

*NPO’s current staffing ceiling is 131 and includes technical and administrative federal personnel.

Table 2: NPO Staff Positions

For All Facilities¹			
TECHNICAL FUNCTIONAL AREA	No. of FTEs Needed¹	No. of FTEs Onboard¹	COMMENTS
Senior Technical Safety Managers	17	17	
Safety System Oversight (SSO)	7.5	4.95	NPO will utilize matrix support from NA-50 to provide the additional support required.
Facility Representatives	19	18	Will hire additional FR
Nuclear Safety Specialist (NSS)	12	11	Will hire additional Nuclear Safety Specialist
Other Technical Capabilities:			
Aviation Manager	0	0	Collateral Duty
Chemical Processing	0	0	Function covered by SSO Engineer (Note 2)
Criticality Safety	1.5	1.5	

For All Facilities¹			
TECHNICAL FUNCTIONAL AREA	No. of FTEs Needed¹	No. of FTEs Onboard¹	COMMENTS
Electrical Systems	0	0	Function covered by SSO Engineer (Note 2)
Emergency Management	2	2	
Environmental Compliance	2	2	One not in the TQP
Facility Maintenance Management	1	1	
Fire Protection Engineering	0.75	0.75	
Industrial Hygiene	0.5	0.5	
Instrumentation and Control	0	0	Function covered by SSO Engineer (Note 2)
Mechanical Systems	0	0	Function covered by SSO Engineer (Note 2)
Occupational Safety	1	1	
NNSA Packaging Cert. Engineer	0	0	NPO will utilize matrix support from NA-50 to provide the additional support required.
NESS	1.25	1.25	
Weapons QA Specialist	3.5	2.5	Will hire additional WQA Specialists
QA / WQA / SSQA Engineer	4	1	Will hire additional QA Engineers
Radiation Protection	0.5	0.5	
Safeguards and Security	19	18	Will hire additional S&S Specialist
Technical Program Manager	13	12	Will hire additional Program Manager
Technical Training	1	1	
Transportation & Traffic Management	0	0	Function covered by SSO Engineer (Note 2)
Waste Management	0	0	Function covered by Environmental Compliance position (Note 2)
Totals	106.5	98.5	Need 8 FTEs + 2 ADMOs
<ol style="list-style-type: none"> 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. SSO staffing analysis worksheets may be used in this process. They are posted at http://energy.gov/ehss/worker-health-safety-policy-guidance-reports/federal-technical-capability-program-ftcp. 3. Facility Representative staffing analysis worksheets are posted at http://energy.gov/ehss/worker-health-safety-policy-guidance-reports/federal-technical-capability-program-ftcp. 			

Note 1: *Facilities, systems, personnel and authorities listed should be those in the organization's immediate line authority.*

Note 2: *Many of the current NPO staff members are covering multiple functional areas and are fully qualified or cross-qualified in many areas. Fortunately, this is due to the high level of technical expertise and experience of the individuals in these areas. This capability will not necessarily be available in future years, resulting in a need for additional staffing.*

Section Three: Current shortages and plans for filling them

The following are the anticipated shortages for NPO in the critical technical capabilities/positions. These positions are contingent upon retaining current staff.

1. Two Associate Deputy Manager for Operations
 - a. Hiring is in process
2. One Nuclear Safety Engineer
 - a. Will be hired in FY16
3. One Security Specialist
 - a. Will be hired in FY16
4. One Facility Representative
 - a. Will be hired in FY16
5. One QA Specialist and three QA Engineers
 - a. Will be hired in FY16
6. One Program Manager
 - a. Will be hired in FY16

Section Four: Projected shortage/surplus over next five years

Table 3 shows the NPO critical technical positions occupied by individuals who meet retirement eligibility and represent a potential staffing shortage in the next five years. Approximately 35% of the NPO staff will reach retirement age in the next five years.

Table 3: NPO Personnel at Retirement Age

Position/Function	2016	2017	2018	2019	2020
Nuclear Safety Specialist	1	1			1
Technical Program Manager	4				
Facility Representative	7	1		1	
Senior Technical Safety Manager	3	1		3	2
Classification Specialist				1	
Emergency Management	1				
Safety System Oversight				1	1
Security Specialists	3	1		1	
Weapons QA Engineer	1				
Weapons QA Specialist	1				
Criticality Safety Engineer	1				
Technical Training Manager	1				
Environmental Compliance		1			
Radiological/IH Engineer			1		
Occupational Safety		1			
Sub Totals / Total	23	6	1	7	4

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

1. NPO is challenged by short notice retirements due to a larger percentage of our workforce already eligible for retirement or will be eligible in the next 5 years. We have determined that approximately 19% of our present staff is eligible to retire at the end of 2016 and an additional 15% will reach minimum retirement age within the next four years (see Section 4, **Table 3: NPO Personnel at Retirement Age**). The skill mix represented by this group affects all areas of the NPO, in particular the Facility Representatives, Safeguards & Security, Technical Program Managers, Senior Technical Safety Managers, and the Subject Matter Experts that occupy 1-deep positions. The lack of entry-level positions to support succession planning continues to be a problem for effective skill preservation management.
2. Of the seven Facility Representatives eligible for retirement in 2016, four are from Y-12 (44% of the current qualified FRs) and three are from Pantex (60% of the current qualified FRs).
3. The Uranium Processing Facility (UPF) is a major project to build a modern, high-hazard nuclear project. This project which has an estimated project cost of more than 6.5 billion requires additional resources for design review and project oversight; this puts a strain on existing resources. Currently, approximately 28 NPO personnel support the UPF IPT in some capacity.
4. Many of the existing NPO technical staff members are covering multiple functional areas; the ability to handle this workload is due to the high level of technical expertise and experience of the individuals themselves. In future years, this level of competency may not be sustainable for the long term, which could result in the need for additional FTE resources in several functional areas. NPO is leveraging existing skill sets and cross-qualifying to meet current needs and to increase skill diversity.
5. NNSA has approved NPO hiring above the current ceiling to support knowledge preservation/turnover due to retirements.