

# **Department of Energy**

Washington, DC 20585

May 19, 1999

The Honorable John T. Conway Chairman Defense Nuclear Facilities Safety Board 625 Indiana Avenue N.W., Suite 700 Washington, D.C. 20004

Dear Mr. Chairman:

In the Revised Implementation Plan (IP) for Board Recommendation 93-3, *Improving DOE Technical Capability in Defense Nuclear Facilities Programs*, the Department commits to conducting a work force analysis of each of its defense nuclear facilities and developing a staffing plan which identifies critical technical capabilities and positions which must be maintained to assure safe operations at these facilities.

As a deliverable pursuant to Commitment 5.3.1 of the IP, senior line managers at each of the defense facilities sites provided a staffing plan to the Federal Technical Capability Panel, which included a description of current critical technical positions, current shortages and strategies for retention and hiring. Each office also took into consideration technical staffing needs associated with anticipated mission changes, organizational changes, and retirements. The Panel reviewed the reports and concluded that the assessments provided a good baseline for improvements to those programs. A summary report based on the Panel's review was prepared and a copy of that summary is enclosed. Board staff members have reviewed the individual reports on which the summary report is based.

The Department has completed the actions identified under Commitment 5.3.1 and proposes closure of this commitment.

If you have any questions, please call me at (202) 426-1506.

Sincerely,

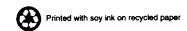
Bavid R. Roth
Executive Secretary

Federal Technical Capability Panel

**Enclosure** 

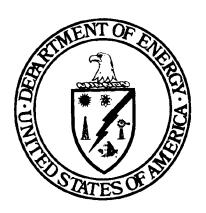
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Chairman, Federal Technical Capability Panel Panel Members
Mark B. Whitaker, Jr., S-3.1



# U. S. Department of Energy Federal Technical Capability Panel

# WORK FORCE ANALYSIS SUMMARY REPORT



Washington, D.C. 20585

**April 1999** 

# FEDERAL TECHNICAL CAPABILITY PANEL TECHNICAL WORKFORCE ANALYSIS SUMMARY REPORT

#### **Background**

Commitment 5.3.1 of the revised Implementation Plan (IP) for DNFSB Recommendation 93-3 requires that Program and Field Offices conduct a work force analysis of their organizations and develop a staffing plan that identifies critical technical capabilities and positions which must be maintained to assure safe operations at defense nuclear facilities. This information will form the basis for the annual report to the Secretary developed under Commitment 5.3.2 of the IP.

The results reflected in this Summary Report are accurate as of December 1998. The report briefly describes the process to conduct and document the analysis, summarizes the overall results, and provides a synopsis of each office's analysis.

#### **Description of the Process**

The Federal Technical Capability Panel (Panel) is responsible for ensuring that the workforce analysis is conducted and the results are analyzed and included in the Panel's annual report to the Secretary. Each Federal Technical Capability Agent coordinated the analysis and development of a report for his or her office. Office reports were based in part on the data collected for the interim workforce analysis completed in mid-1998.

The Panel provided guidance to help the Agents conduct the analysis and write the report. The guidance was intended to be flexible enough to allow the individual offices to conduct and document a workforce analysis that met their needs, while still allowing for collection of consistent data across the Department. The Agents were asked to focus their analysis and document the results in the following five areas:

Section One: Provide a brief description of the current mission(s) of the organization to frame the need for technical capability in the organization. Additionally, describe probable or potential changes to the mission(s) of the organization that may have an impact on the required critical technical capabilities/positions for the organization. This may include new missions, changing missions, downsizing, starting facilities, shutting down facilities, etc.

<u>Section Two</u>: Identify Critical Technical Capabilities/Positions for the organization and the minimum number of personnel/positions required in each area. For most organizations, this will only require a review and validation of the information submitted for the interim workforce analysis.

<u>Section Three</u>: Identify current shortages, what is (or will) be done to fill the shortage (including any compensatory measure), and the anticipated date that the shortage will be filled.

<u>Section Four</u>: Identify projected shortages or surpluses in critical technical capabilities/positions over the next three years. These projections should be based on mission changes indicated in Section One, and vacancies created due to retirements, changing demographics, etc. Included in this section should be a brief description of how the organization will deal with the changing requirements.

<u>Section Five</u>: Identify any general concerns/recommendations related to ensuring that critical technical capabilities/positions are maintained for the organization, or the Department overall.

All of the offices addressed the five areas indicated in the guidance. Each office submitted their workforce analysis report to the Chair of the Federal Technical Capability Panel, with a copy to the Executive Secretary. An overview of the results of each office's analysis is provided in this report. The complete workforce analysis for each office are on file with the Executive Secretary of the Panel.

#### **Summary of the Results**

As of December 1998, there are a total of 686 positions across the Department identified as critical technical capabilities that are tied directly to the safe operations of defense nuclear facilities. Of those 686 critical technical capabilities, 60 were identified as being vacant. The organizations that identified vacancies also identified actions to fill those vacancies over time. The Albuquerque Operations Office identified the largest number of critical technical capabilities at 300, they also identified the largest number of vacancies at 45.

All of the organizations reviewed and validated the critical technical capabilities/positions identified in the interim workforce analysis conducted in mid-1998. Some organizations made significant changes to their list while others made none.

Most offices identified changes in mission as being the largest factor impacting critical technical capability needs. Mission changes range from new mission areas to site closure. All of the offices indicated that they would continue to monitor mission changes and update their critical technical capability needs as necessary to ensure they matched the mission(s) of the organization.

Current or projected shortages in critical technical capabilities common to several of the offices include: Facility Representatives, Senior Technical Safety Managers, Excepted Service Senior Technical Experts, and Criticality Safety Experts.

Common concerns identified by the offices included the continued effects of budget reductions, attrition due to downsizing, an increasing number of retirement eligible employees, and retention difficulties particularly regarding interns and competition from contractors/private industry.

All of the offices reported that they have anticipated most of the challenges and have implemented strategies to retain employees and address current and potential gaps in critical technical capabilities. Strategies such as hiring from within the Department, cross-training, use of the Department's Excepted Service authorities, and increasing promotion potential for technical positions were most frequently mentioned as solutions. Offices have also employed programs such as the Technical Leadership Development Program, career development programs, succession planning programs, and the Technical Qualification Program to help address technical capability needs.

# Summary of Workforce Analysis for Each Office (as of December 1998)

# Defense Programs (DP)

Defense Programs has 26 positions considered critical to the safety of defense nuclear facilities. All of the positions are designated as Senior Technical Safety Managers and currently staffed by an incumbent who is either permanently appointed or in an acting capacity. The following are the critical technical positions identified by DP:

- Deputy Assistant Secretary for Military Application and Stockpile
- Deputy Assistant Secretary for Program Support
- Assoc. Deputy Asst. Secretary for Technical and Environmental Support
- Deputy Assoc. Deputy Asst. Secretary for Technical and Environmental Support
- Director, Office of Research, Development and Testing Facilities
- Director, Office of Internal Fusion and NIF Project Office
- Director, Office of Weapons Surety
- Director, Office of Emergency Response
- Director, Office of Site Operations
- Director, Tritium Project Office
- Director, Office of Tritium Production
- Director, Office of Commercial Light Water Reactor Production
- Deputy Director, Office of Weapons Surety
- Office of Nuclear Weapons Management
- Principal Defense Programs Representative to the Defense Nuclear Facilities Safety Board
- Group Leader, Engineering and Operations Support
- Team Leader, Nuclear Explosives Weapons Safety
- Team Leader, Stockpile Support Team
- Team Leader, Facility Emergency Response Team
- Team Leader, Savannah River Site Tritium H3 Facilities
- Team Leader, Oak Ridge Y-12 Plant
- Team Leader, Pantex Team
- Team Leader, Laboratory Production Team
- Team Leader, Operations Support Team
- Team Leader, Risk and Safety Support Team
- Team Leader, Engineering/Design Support Team

DP is requesting authority to initiate recruitment actions to fill three positions relating to safety of nuclear weapons and facilities. The three positions supplement the technical support staff and include two Nuclear Explosive Safety Engineers (Excepted Service or GS-15) and a Nuclear Safety Engineer (Excepted Service or GS 14/15).

To address concerns about shortages of key technical skills and to gain optimum use of limited technical staff, DP is in the process of implementing organization changes that will enable better utilization of its technical resources. Additionally, DP intends to use the Technical Resource Group (TGR), Core Technical Group (CTG), Technical Qualification Program (TQP), Technical

Leadership Development Program (TLDP), DP Fellowship Program, and the results from the National Securities Study Program (NSSP) to ensure they have the necessary technical capability to safely accomplish the DP mission.

#### Environment, Safety, and Health (EH)

EH reviewed and validated its interim work force analysis, which indicated that the office has positions and functions that are critical to the EH mission and to the Department. However, the positions are not "tied directly" to controlling, funding, or directing activities at defense nuclear facilities and therefore cannot be considered "critical positions" as defined by the criteria issued by the Federal Technical Capability Panel. These positions (in oversight, technical support, and policy development and interpretation) are related to, or influence, safety activities at defense nuclear facilities.

The EH Critical Federal Technical Nuclear Safety Needs Analysis, dated August 1, 1996, was reviewed in 1998 and determined to remain valid because EH missions and functions had not changed appreciably since the analysis was performed. This analysis identified 34 positions critical to the EH mission and functions critical to the Department. These positions, however, do not fall within the definition of "critical positions" in the revised Implementation Plan for 93–3. Hiring five individuals into Excepted Service positions and one Senior Executive satisfied the identified staffing needs critical to EH's mission.

Notwithstanding the conclusion regarding the absence of "critical positions" in the 93-3 context, EH has implemented the Senior Technical Safety Manager (STSM) Program, taking Departmental guidance into consideration. As of December 1998, there were 16 senior EH officials enrolled. The following positions, which include four technical backup positions, are designated as STSM in EH:

- Assistant Secretary for Environment, Safety & Health or Principal Deputy Asst. Secretary for Environment, Safety & Health
- Deputy Asst. Secretary for Oversight or, Associate Deputy Asst. Secretary for Technical Matters or Associate Deputy Asst. Secretary for Operations
- Deputy Asst. Secretary, Nuclear and Facility Safety
- Deputy Asst. Secretary, Worker Health & Safety
- Director, Office of Engineering Assistance & Site Interface
- Director, Office of ES&H Evaluations
- Director, Office of ES&H Residents
- Director, Office of Facility Safety Analysis
- Director, Office of Field Support
- Director, Office of Nuclear Safety Policy & Standards or Deputy Director, Nuclear Safety Policy & Standards
- Director, Office of Operating Experience Analysis and Feedback
- Director, Office of Radiological Protection Staff
- Director, Office of Worker Protection Programs & Hazards

In addition, EH has approximately 100 technical positions, including STSM, designated for the defense-related Technical Qualification Program (TQP). As the office implements recommendations from the Phase 1 TQP Assessment report, the number of positions designated for the TQP is expected to be revised.

Potential shortages or surpluses in EH technical capabilities resulting from mission changes (e.g., external regulation) cannot be anticipated until the future of external regulation becomes more focused. Reassignments, promotions, and acquisition of additional personnel will be used to accommodate personnel losses due to transfers, retirements, or other reasons. Retraining efforts continue to develop incumbents in current EH technical and managerial positions for future placement as others leave or as changes in the EH mission focus and attendant skill mix occur. As of December 1998, EH determined that it had sufficient principal and backup personnel with technical capabilities needed to perform the safety functions of the office.

# Environmental Management (EM)

EM reviewed and validated their initial list of critical positions submitted in October of 1998. In addition to validating that list, they identified three other positions that meet their criteria and added those positions to their critical technical capability list. EM has identified 23 positions as critical technical capabilities. Their current list of critical technical capabilities is as follows:

- Assistant Secretary for Environmental Management or Principal DAS for EM
- DAS, Office of Waste Management or, Associate DAS for Waste Management
- DAS, Office of Environmental Restoration or, Associate DAS, Office of Envir. Restoration
- DAS, Office of Nuclear Material and Facility Stabilization or, Associate DAS, Office of Nuclear Material and Facility Stabilization
- DAS, Office of Site Operations or, Associate DAS, Office of Site Operations,
- DAS, Office of Science and Technology
- Director, Office of Northwestern Area Programs
- Director, Mound and Pinellas Project Office
- Site Lead, Al/NV
- Site Lead, ID
- Site Lead, OH
- Site Lead, OR
- Director, Office of Hanford Operations (Site Lead, RL)
- Site Lead, CH/OAK
- Director, SRO (Site Lead, SRS)
- Director, RFO (Site Lead, RF)
- Site Lead, CAO
- Director, Office of Safety & Health
- Director, Office of Eastern Operations
- Director, Office of Central Operations
- · Director, Nuclear Material Stabilization Office
- Director, Spent Fuel Management Office
- Director, Office of Transportation and Emergency Management

EM's Headquarters workforce is 43.5 percent smaller than its highest level of 756 in October 1995. In 1995, about 57 percent of the EM Headquarters workforce were in technical positions, while about 43 were in non-technical positions. Although the percentage of the technical workforce remains constant, downsizing has reduced the overall number of technical experts.

Currently, EM does not have any critical technical capability shortages. They plan to continuously monitor their needs and plan to evaluate a succession planning program, utilize a TLDP as staffing ceilings and budget will allow, and evaluate the use of other developmental programs as appropriate.

# Albuquerque (AL)

Albuquerque's analysis identified 300 critical technical positions in nine general category areas. They have identified needs for each of the major organizational elements at AL, including the area offices. Albuquerque's current list of critical technical positions by category is listed below. It should be noted that most of the Authorization Basis Approval positions are also STSMs, and therefore counted twice below.

- Senior Technical Safety Manager (40)
- Program Management (44)
- Project Management (23)
- Authorization Basis Review (34)
- Authorization Basis Approval (16)
- Facility Representative (43)
- Site Health and Safety (35)
- Operational Readiness (11)
- Unique Technical Experts (69)

A total of 255 of the 300 positions are filled and 45 positions are vacant. The two categories with the largest numbers of vacancies are facility representative (12 vacancies) and authorization basis review (10 vacancies). Albuquerque is committed to filling vacancies in these two categories as a top priority in the FY99 resource plan. They continue to rely on the transfer of DP technical personnel from Headquarters as a key element in filling authorization basis review positions.

Albuquerque is constrained in its ability to hire in FY-99 due to budget reductions. To fulfill their recruitment needs through the remainder of FY 1999, while ensuring that they enter FY-2000 with an acceptable onboard strength, they have requested buyout and early-out authority for personnel not in scientific or technical positions to provide slots that can be used to fill critical technical positions.

Albuquerque does not project any dramatic shortages or surpluses in critical technical capabilities over the next three years. They plan to maintain critical technical capabilities by focusing recruitment efforts on critical technical positions; developing employees in critical technical positions through an enhanced Technical Qualification Program; and retaining fully qualified

personnel by providing challenging assignments, career advancement, recognition for technical accomplishments, retention allowances as appropriate, and placements of critical technical position in designated competitive levels.

#### Idaho (ID)

Idaho reviewed and verified the accuracy and relevancy of their previous staffing analysis submitted in June 1998. In that analysis, Idaho identified 36 critical technical positions in 18 areas. They have 30 people currently onboard to fill the 36 positions. Of the 30 people onboard, 22 of them are designated as qualified. Idaho's current listing of critical technical positions is as follows:

- Deputy Operations, OPE
- Idaho Nuclear Technology and Engineering Center Facility Director
- Facility Representatives
- Test Reactor Area/Specific Manufacturing Capability Facility Director
- Test Reactor Area/Specific Manufacturing Capability Facility Representatives
- Central Facilities Area/Test Area North Facility Director
- Central Facilities Area/Test Area North Facility Representatives
- Radioactive Waste Management Complex and Waste Reduction Operations Complex Facility
  Director
- Radioactive Waste Management Complex and Waste Reduction Operations Complex Facility Representatives
- FSV Facility Manager
- SME Criticality Safety
- SME Radiological Controls
- SME Nuclear Safety
- · Facility Engineer.
- Advanced Mixed Waste Treatment Project Director
- FSV Quality Assurance
- RESL Radiological Controls Manager
- Manager's Office Senior Scientist

Internal recruitment is in progress to fill two Facility Representative and four subject matter vacancies. Reassigning ID employees to those positions can resolve most of the technical skill shortages by the end of 3<sup>rd</sup> quarter FY99. Technical training will begin as soon as employees are placed. The few vacancies that cannot be filled by internal reassignments will be filled by selective external recruitment.

Idaho does not project any technical position surpluses over the next three years based on project missions and work loads. They anticipate shortages in the following technical areas based on retirements and other form of attrition over the next three years: FY99- Facility Representative; FY00- Facility Representative; FY01- Facility Representative, SME-Nuclear Criticality Safety Engineer, and SME-Nuclear Safety Engineer.

#### Nevada (NV)

Nevada reviewed and validated the interim workforce analysis completed in June 1998. They identified 26 critical technical positions in 20 areas. They show all of the 26 positions as being filled. The list of critical technical positions for Nevada is as follows:

- Manager
- Assistant Manager for National Security
- Deputy Assistant Manager for National Security
- Assistant Manager for Environmental Management
- Deputy Assistant Manager for Environmental Management
- Assistant Manager for Technical Services
- Deputy Assistant Manager for Technical Services
- Stockpile Stewardship Division Director
- Site Operations Division Director
- Emergency Management Division Director
- Nuclear Explosive Safety Engineers
- Device Assembly Facility (DAF) Facility Representative
- U1A Facility Representative
- Waste Management Division Director
- Radioactive Waste Management Sites Facility Representative
- Environment, Safety & Health Division Director
- Engineering and Asset Management Division Director
- Test Controllers
- Health Physics Advisors

Nevada currently has no critical shortages in its technical capability/position requirements. When the interim workforce analysis was completed earlier this year, the Test Controller position was cited as a current shortage capability. However, they had four employees enrolled in the qualification program for that critical function. Since July, two of the four employees have completed the qualification program, one has been reassigned to other duties and is no longer in the program, and the last employee is making satisfactory progress toward qualification.

Nevada does not project surpluses in critical technical capabilities/positions over the next three years, nor can it accurately project shortages in these areas. The number of employees in critical technical positions who can retire or take early retirements over the next three years is high, and it is impossible to anticipate which position might be vacated before another. Several programs are being implemented to ensure that Nevada maintains its technical capabilities. These include a Career Development Program, the STSM Program, the Technical Qualification Program, Succession Planning, the Technical Leadership Development Program, and the DP Fellowship Program.

#### Oak Ridge (OR)

Oak Ridge validated their interim workforce analysis submitted in mid-1998 and indicated that there were no changes. They identified 35 critical technical positions in 12 areas. All of the positions are indicated as filled. Oak Ridge's current list of critical technical capabilities is as follows:

- Manager, Emergency Management Program
- Director, Operations Team, ORNL Site Office
- Director, Remediation Management Group
- Team Leader, ETTP Team
- Team Leader, 3-Bldg. D&D Team
- Director, Nuclear Safety Division
- Director, Operations Division
- Director, Technical Support Division
- Director, Project Services Division
- Director, Technical Services Division
- Asst. Manager for Projects and Technical Services
- Facility Representatives (24)

Oak Ridge identifies future vacancies in the positions of Director, Operations Team, ORNL Site Office; Director, Nuclear Safety Division; and Facility Representatives. They will fill those positions through recruitment within the Department.

OR has established a corporate management approach to downsizing and realignment activities in order to effectively accomplish critical mission activities while reducing staffing levels through attrition. Critical positions and activities were identified and an inventory of employees interested in reassignment or detail to such positions was established to facilitate reassignment and retraining.

OR's planned critical hires include a nuclear criticality engineer, facility representative, industrial safety engineer, and fire protection engineer.

## Oakland (OAK)

The list of critical technical position identified in the workforce analysis was reviewed and validated with minor changes. Oakland identified 37 critical technical position in twenty-eight areas. These positions were identified as either line managers or subject matter experts necessary to protect the health and safety of the public and workers at Lawrence Livermore National Laboratory. Oakland's current list of critical technical capabilities is as follows:

- Manager
- Assistant Manager for Environment & National Security (AMENS)
- Deputy Assistant Manager for Environment & National Security
- Assistant Manager for the Livermore Site (AMLS)

- Deputy Assistant Manager for the Livermore Site
- Senior Nuclear Safety Advisor
- Nuclear Safety Advisor
- Weapons Research Division Director
- Livermore Operations Division Director
- Inertial Confinement Fusion Division Director
- Livermore Environmental Programs Division Director
- High Explosives Safety Engineer
- Nuclear Explosive Safety Engineer
- Criticality Safety Engineer
- Facility Representatives (11)
- Industrial Hygienist
- Fire Protection Engineer
- Occupational Health & Safety Mgr
- Price Anderson Amendments Coordinator
- Super Block Operations Team Leader
- High Explosives Operations Team Leader
- Weapons Operations Team Leader
- Institutional Operations Team Leader
- Laser Operations Team Leader
- AVLIS Operations Team Leader
- Livermore Waste Management Operations Team Leader
- Nuclear Safety Engineer

Oakland is currently in the process of filling the Senior Technical Advisor - ESH position and anticipates that the position will be filled in early 1999. Oakland does not anticipate shortages in critical technical positions over the next three years for two reasons: Oakland recently granted retention allowances to two senior technical managers and most of the Facility representatives will not be able to retire within the next three years. However, the potential for attrition exists because of possible losses to the private sector or at contractor sites. To counter this potential, Oakland is prepared to offer retention allowances. Oakland has been successful in ensuring the retention of critical technical capabilities by using TQP training, retention allowances, relocation bonuses, and the Excepted Service authorities.

#### Ohio (OH)

Ohio reviewed and revised their interim workforce analysis submitted in June of 1998. As a result of that revision, Ohio now has reduced the number of identified critical technical positions from 55 to 19. They have not identified any critical technical capability shortages. The current list of critical technical positions at Ohio is as follows:

- Criticality Safety Engineer
- Safety and Assessment Associate Director Fernald
- Safety and Assessment Deputy Associate Director Fernald
- Safety & Health Criticality Team Leader Fernald

- Facility Representatives Fernald (6)
- ES&H Associate Director Mound
- Facility Representative Mound (4)
- O&S Associate Director West Valley
- Facility Representative West Valley (2)
- S&H/QA Team Leader West Valley

Ohio found it difficult to project surpluses or shortages in critical technical positions. Their schedules call for a relatively flat organization over the next three years and they have taken steps to protect critical positions during that time. These steps include: increasing promotion potential; placing critical positions in separate competitive levels; and cross-training.

Ohio developed and approved an Employee Transition Plan designed to help Ohio employees with career development while at Ohio, and with future employment when their particular position is projected as surplus beyond a certain date.

The Ohio Field Office is comprised of environmental management sites that are on an accelerated schedule to closure. The mission focus will change with the completion of the carious phases of environmental restoration at each site increasing the necessity for flexibility in functional assignments. Ohio recognizes that its commitment to maintain a fully qualified technical staff represents a serious challenge. A prioritized focus will be placed on the retention of critical technical skills using features of Ohio's TQP and the Employee Transition Plan.

#### Richland (RL)

Richland reviewed and revised their interim workforce analysis that was submitted in October 1998. Currently, ninety critical technical positions are required and eighty-six designated personnel are on board for those positions. The shortages are for STSMs and Excepted Service critical positions. Forty-three of the ninety personnel have completed all DOE qualification requirements for their positions. Richland's current lists of critical technical capabilities by category are as follows:

- Facility Representatives (33)
- Nuclear Safety/Criticality Engineer (3)
- Excepted Service Critical Positions (20)
- Fire Protection Engineer (1)
- Ceramics/Materials Processing Scientist (1)
- Vitrification Specialist (1)
- Senior Technical Safety Manager (31)

Richland expects that the newly created Office of River Protection may cause an impact to their existing critical technical capabilities/positions within the next three years.

Richland has experienced difficulty in recruiting Excepted Service technical talent because of the excessively long review times at Headquarters for approval of job offers. Qualified candidates

frequently are seeking employment in both the commercial and government arena at the same time. Richland suggests that more authority for Excepted Service hiring be delegated to the field offices.

#### Rocky Flats (RF)

Rocky Flats has identified 37 critical technical positions in 15 areas. All but four of the positions are filled - and they have addressed the four vacant positions as indicated below. The current list of critical positions at Rocky Flats is as follows:

- Assistant Manager for Performance Assessment
- Assistant Manager for Engineering
- Facility Representatives and Team Leads (15)
- Authorization Basis Division Director
- Team Lead/Nuclear Safety Expert
- Nuclear Safety Analyst
- Engineering Support Division Director
- Criticality Safety Engineer (1)
- Fire Protection Engineer
- Ventilation/HEPA Filters General Engineer
- Plutonium Chemist
- Chemical Processing Chemical Engineer
- Health Physicist Radiation and Beryllium
- Industrial Hygienist Beryllium (1)
- Radiation Protection Team Lead and Health Physicist
- Transportation Engineer
- Material Control and Accountability Specialist

The current shortages at Rocky Flats are in fire protection, transportation, ventilation/HEPA Filters and radiation protections. In fire protection and transportation, management has filled the positions with temporary staff. In ventilation, RF is currently training a recent graduate of the Technical Leadership Development (Intern) Program to fill this vacancy. They are also in the process of hiring 2 Health Physicists for the area of radiation protection.

Rocky Flats projects shortages due to retirement for the next two years in areas of Facility Representative, nuclear safety, plutonium facility operations, engineering management, plutonium chemistry, and occupational medicine. These shortages are based on the potential of incumbents in the positions retiring. If this occurs, Rocky Flats plans to advertise to fill these positions from within DOE. They will continue to define the skills required to improve staffing levels and pursue authorities to address their skill mix concerns through closure.

Rocky Flats' current staffing level is 237 employees. Their FY-99 End of Year(EOY) target is 266 and their FY-00 target is 233. Based on their present 13 percent attrition rate and the closure environment, they believe that attrition will allow RF to be under the EOY target levels for the foreseeable future.

#### Savannah River (SR)

Savannah River reviewed and updated the list of critical technical capabilities identified in their interim workforce analysis conducted in mid-1998. They have reduced the list from 101 critical positions in five general categories, to 69 positions in those same five categories. The current list of critical technical capabilities at Savannah River is as follows:

- Senior Technical Safety Managers (12)
- Technical Experts (14)
- Authorization Basis/Safety (12)
- Facility Representatives (19)
- Program Managers (12)

Savannah River employs a "defense-in-depth" strategy which requires more than the minimum technical competencies to ensure safe operations at all times. SR's workforce capabilities development and maintenance strategies are tailored to assure that SR does not drop below defense-in-depth staffing levels.

Savannah River has evaluated potential mission changes over the next five years and does not anticipate any critical gaps in its workforce. They will manage and reallocate critical technical resources as necessary to ensure that they maintain defense-in-depth.

Savannah River does have several areas where defense-in-depth must be enhance to compensate for possible attrition associated with employee retirement that could occur during the next five years. They will recruit and develop sufficient defense-in-depth capabilities for the technical expert subcategories of criticality safety, materials control and accountability, natural phenomena, and tritium.

Savannah River will request two TLDP interns and is evaluating use of other administrative flexibilities as strategies for recruitment and retention.