

# Integrated Regulatory Review Service Mission to the United States

## **ELECTIVE POLICY ISSUE # 3: HUMAN RESOURCES AND KNOWLEDGE MANAGEMENT**

### **Overview**

The U.S. Nuclear Regulatory Commission (NRC) experienced a period of expansion in which the agency worked aggressively to hire the highly skilled staff needed to regulate the existing fleet of operating nuclear reactors and to meet the demands of new reactor and materials license application reviews. The agency has grown from a staff of 3,110 employees in 2004 to over 4,000 employees today. The NRC is striving to meet the challenge of training and integrating a new and increasingly younger workforce and providing its personnel with the necessary infrastructure to successfully carry out the organization's mission. Over the next three years, the NRC is facing a relatively flat budget and must shift its emphasis to retaining the highly skilled workforce that it has recruited.

Responses to employee viewpoint surveys show that the NRC's efforts to hire and retain a highly motivated workforce are succeeding. In 2007 and 2009, the NRC was ranked as the best place to work in the Federal Government. The results of the 2009 survey reflect that employees feel strongly engaged, understand how their work contributes to the agency's mission, and view their work as meaningful and important. Survey results also indicate that employees agree that they have the training, development, information, and skills needed to perform their work.

### **Strategic Workforce Planning**

The NRC is constantly seeking to identify workforce trends and changes in the nuclear industry while assessing the agency's future needs. Strategic Workforce Planning is the process used to ensure that the right number of people with the right knowledge, skills, and abilities are in the right jobs to successfully fulfill the agency's mission. Accordingly, strategic workforce planning provides management with a basis for making human resource decisions. Strategic workforce planning has the following goals:

- Identify short- and long-term critical skill gaps.
- Identify workforce trends and projections.
- Develop strategies to close skill gaps.
- Address succession planning.

This proactive approach is supported at the highest levels of the agency, and in 2006, the agency formed the Human Capital Council, which comprises senior managers from the NRC offices. The council ensures that agency-wide human capital goals and strategies align with the agency's mission.

### **Leadership and Succession Planning**

As the focus shifts to training and retaining its highly skilled workforce, the NRC recognizes that it must build and maintain a cadre of diverse candidates to manage and lead the agency in both the long and short term. To address succession planning, the NRC has created formal, competitive programs that provide a pipeline to supervisory and executive level positions.

These programs include the Leadership Potential Program and the Senior Executive Service (SES) Candidate Development Program. The Leadership Potential Program prepares high-performing individuals with little or no managerial experience for positions requiring leadership skills and abilities. The SES Candidate Development Program supports succession planning by preparing individuals who have demonstrated exceptional managerial potential for leadership positions; it is an 18-month program that focuses on developing all the competencies related to the executive core qualifications required for candidates to be certified for SES positions.

### **Knowledge Management**

The NRC has incorporated knowledge management (KM) into its strategic workforce planning. The goal is to identify short- and long-term gaps in critical skills so that the agency is able to anticipate change. To this end, the NRC attempts to detect workforce trends and projections and to close anticipated skill gaps through training and development and through KM.

The NRC uses an agency-wide KM plan that serves as a framework to integrate new and existing approaches that generate, capture, and transfer knowledge and information relevant to the NRC's mission. The following are some of the near-term and long-term strategies for this plan:

- capture relevant critical knowledge of departing personnel
- recapture departed knowledge where possible
- communicate leadership's expectation for a knowledge-sharing culture
- formalize KM values and principles
- incorporate KM within process workflows

The KM and knowledge transfer activities used to accomplish these goals include the following:

- Branch Chief/Team Leader Seminars. As a community of practice, the Branch Chiefs and team leaders meet monthly for presentations by agency experts on topics such as performance management, budget, and communications.
- Video Interviews. The NRC conducted a pilot study to capture knowledge from retiring senior staff using video interviews. The interviews included questions about licensing issues, recruiting and mentoring new hires, leadership, operations center experience, and reactor licensing performance metrics.
- Web Sites. The NRC has developed the "NRC Knowledge Center" Web page which links a number of communities and topics. Office-specific KM programs supplement this Web page.

Finally, the NRC makes prudent, targeted use of retention incentives and pension offset waivers (rehiring annuitants without reduction of salary or pension) to retain highly qualified employees and as a KM tool. Such incentives are particularly useful for unusual occupations or highly specialized disciplines for which candidates may be scarce.

## **Training**

Nearly half of the NRC staff has been with the agency for fewer than 4 years. Rapidly training and integrating so many new employees into the agency is a significant challenge. The NRC uses an integrated approach to learning to provide new employees with consistent information from branch to branch and division to division.

For example, the agency has adopted an enterprise-wide leadership development program for all workforce segments from entry level through the SES level. The focus is on development of 28 defined Federal Government-wide leadership competencies. To assist new employees, the NRC has developed a virtual orientation center. This advanced training tool allows new hires to enter a computer generated or virtual world where they can obtain information about the NRC's organization, its mission, and employee benefits before starting their first day of work.

Position-specific training is also expected to accompany this generic training. For example, structured on-the-job training is associated with the inspection function carried out by the agency. NRC offices, such as the Office of Nuclear Reactor Regulation, have developed a qualification program that consists of three parts: general requirements, position-specific requirements, and oral qualification boards. The NRC is continuing to develop its qualification plans and other position-specific training, such as that for project engineers and managers. It is also identifying course needs at its Technical Training Center and Professional Development Center.

## **Staffing**

Even though we expect limited growth in the agency's budget, the NRC will continue to recruit and hire staff as necessary to successfully carry out the agency's mission. The NRC must remain the employer of choice if it is to continue to attract a highly skilled workforce and be effective in accomplishing its mission. The agency has developed a talent acquisition plan to position the NRC to be as competitive as possible in this evolving environment. This plan includes, but is not limited to, the following efforts:

- Branding;
- Identification with Agency Mission; and
- Academic Linkages

Employer branding means name recognition and identification with a mission. This is a long-term process in which the agency engages, even when not recruiting. In addition, NRC personnel want to know how their work relates to the agency's mission and how they are making a difference. Identifying with the agency mission is, perhaps, the agency's most important recruitment and retention tool. Finally, the agency engages in targeted recruiting and connecting with universities. In addition to participation in career fairs, the NRC employs university champions and engages faculty and administration through grants and scholarships.

The University Champions program was developed as part of the agency's overall human capital strategy. Through this program, NRC staff volunteer to serve as emissaries of the NRC and establish a close individual liaison with school officials. The university champions participate in meetings with engineering and science department heads, professors, and career counselors to discuss agency priorities, funding opportunities through grants, and promotion of NRC as an employer of choice. They also conduct NRC information sessions for students.

Financial support provided to universities through grants and scholarships helps attract highly skilled engineers to the NRC and promotes nuclear research programs.

## **Conclusion**

As the NRC shifts its focus internally to staff development and retention, challenges will arise with conflicting demands for resources. Hiring trends in the nuclear industry will likely accelerate the attrition of NRC expertise, as the NRC and industry compete for scarce human resources. The NRC must take a global view of human resources.

The first focus is recruitment. The NRC will continue to emphasize “home-grown” talent that is recruited, as the agency begins to see the benefits of its talent acquisition plan. Strategically, the NRC may find that it needs to increase its emphasis on the academic environment. Resources for students, faculty, and curriculum development will be the key to ensuring that the agency has continued access to a talented and highly skilled workforce. Second, KM will remain a high priority as the NRC must capture relevant critical information and processes. Finally, the agency must retain the highly skilled workforce it has recruited. The NRC believes that a continued emphasis on employee engagement and work-life balance is the best way to retain its personnel.